

No. 15670

United States
Court of Appeals
for the Ninth Circuit

NORTHWEST ORIENT AIRLINES, INC.,
Appellant,

vs.

GERALDINE B. GORTER, as Administratrix of
the Estate of John M. Waldrep, Deceased,
Appellee.

Transcript of Record

In Three Volumes

VOLUME II.

(Pages 379 to 768, inclusive).

Appeal from the United States District Court for the
Western District of Washington,
Northern Division

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ALVIN B. OPSAHL

called as a witness by Plaintiffs, being first duly sworn, was examined and testified as follows:

Direct Examination

Q. (By Mr. Riley): Would you state your full name, Mr. Opsahl?

A. Alvin B. Opsahl. The last name is spelled O-p-s-a-h-l.

Q. And where do you reside, sir?

A. At 2633 Southwest 167th Place.

Q. I think you had better spell your last name for the record, or did you? A. I did.

Q. Oh, pardon me.

The Court: O-p-s-a-h-l?

A. Yes, sir.

The Court: It is Elton, E-l-t-o-n?

A. Alvin, A-l-v-i-n.

Q. (By Mr. Riley): And where are you employed, Mr. Opsahl?

A. Northwest Orient Airlines at Seattle, Washington.

Q. And in what capacity, sir?

A. Senior Supervising Inspector. [298]

A. And how long have you been in that capacity? A. Since 1950.

Q. Were you Senior Supervising Inspector in Seattle on January 19, 1952? A. Yes.

Q. Would you describe in detail your duties as Senior Supervising Inspector at the Seattle base of the defendant airline, and describe your duties as of January 19, 1952?

(Testimony of Alvin B. Opsahl.)

A. My duties are as a Senior Supervising Inspector to see that the company rules and the CAA rules are enforced, see that the inspectors are properly trained, see that the inspection is coordinated with the other divisions of the airline.

The Court: And when did you say you began as that Senior Supervising Inspector?

A. Since 1950.

The Court: What month, do you remember?

A. Oh, approximately July.

The Court: You may inquire.

Q. (By Mr. Riley): Are there prescribed, and were there on January 19, 1952, prescribed regulations relating to the installation of life rafts and life vests, flares, emergency lighting equipment, and other survival equipment aboard aircraft [299] engaged in overseas traffic? A. Yes, sir.

Q. Are you familiar with Ship 601 which crashed as Flight 324 on January 19, 1952?

A. With the service bulletins to refresh my memory, yes.

Q. Did you cause or had you caused an inspection of Flight 324 or Ship 601 before it departed for the Orient?

A. Yes. Every flight going to the Orient is inspected.

Q. Are records kept of these inspections?

A. Yes.

Q. Do you have such records?

A. I do not. They are sent in to St. Paul every day.

(Testimony of Alvin B. Opsahl.)

Q. Did you review the records after the crash of Flight 324?

A. The records were back at St. Paul at that time.

Q. You did not review them? A. No.

Q. Then you do not know whether or not a proper inspection of Ship 601 was accomplished prior to the time it left for the Orient before its ill-fated crash?

Mr. Koch: I object to the form of the question, your Honor.

The Witness: I can answer that question——

The Court: Just a moment. [300]

Do you understand the question?

A. Yes.

The Court: The objection is overruled. You may answer.

A. Yes. That inspection was proper.

Q. (By Mr. Riley): How many people do you have in your department, Mr. Opsahl?

A. At the present time, just ten.

Q. At that time.

A. At that time, around seventeen.

Mr. Opsahl, you have discussed with Mr. Koch, or Counsel for the defendant airline, in some detail what might be expected here, have you not?

A. Very little.

Q. And you are a department head for the defendant airline? A. Yes.

Mr. Riley: If your Honor please, I want to state again for the record that I called Mr. Opsahl

(Testimony of Alvin B. Opsahl.)

as an adverse witness, and I asked the Court for permission in compliance with Rule 43(b) to examine him with leading questions if necessary under that Rule which we have discussed heretofore.

I think the fact that he is a department head places him within that Rule, and it would [301] serve to facilitate the examination, and I believe that we are entitled to that under those circumstances.

Mr. Koch: Your Honor, I submit there is no basis whatever for the request. I haven't talked to Mr. Opsahl for a total of five minutes.

The Court: The Court will not go into the facts about that. The Court denies the request that he be called as an adverse witness because I believe he does not come within the meaning of a managing agent or the kind of agent of a corporation which is mentioned in that Rule, Rule 43(b).

Mr. Riley: I won't pursue that any more, your Honor. I wanted to make the record on it, however, and I will do my best to proceed without wasting the Court's time further.

Q. (By Mr. Riley): Mr. Opsahl, were you in January of 1952 then responsible for the installation of life rafts in aircraft?

A. We were not responsible for the installation. The mechanical people are responsible for the installation and we are responsible for the inspection to see that it's in there, and see that it has not expired.

Q. Are you responsible to see that the rafts are

(Testimony of Alvin B. Opsahl.)

installed in the locations as prescribed by your Operations Manual? [302]

A. That's correct.

Q. And do you know whether or not the rafts in Ship 601 were installed in their positions in accordance with the Northwest Airlines Operating Manual or Maintenance Manual?

A. That question there——

Mr. Koch: Just a moment. I object to the question. He just testified that he didn't have anything to do with the installation, but only as to inspection, and now the question refers to installation.

The Court: The objection is overruled. If he knows the answer, he may give it.

A. You didn't mention airlift. There's a difference between airlift and the regular airline airplanes.

Q. (By Mr. Riley): Would you explain what that difference is?

A. That's explained very clearly in the Service Bulletins. The Service Bulletins actually explain——

The Court: Is there one in evidence you wish to call to his attention in that connection as an exhibit?

Mr. Riley: I have none known to me.

The Court: You may proceed. [303]

A. The Service Bulletin explains the difference of instrumentation, the radio gear, the radio location, the engines, wheels and brakes, and also the inside of the cabin.

(Testimony of Alvin B. Opsahl.)

Mr. Riley: Would the bailiff show Plaintiffs' Exhibit 15 to the witness?

The Court: That will be done.

(The exhibit was handed to the witness.)

The Court: It is called a DC-4 Bulletin.

Mr. Riley: Yes, your Honor.

The Court: You may inquire.

Q. (By Mr. Riley): Inspecting Plaintiffs' Exhibit 15, or having looked at Plaintiffs' Exhibit 15, is this such a document as you were just describing, or is this a Service Bulletin?

A. This is Service Bulletin Number 144, dated August 29, 1951.

Q. Does that Bulletin deal specifically with airlift aircraft, and particularly does it deal with Ship 601 or any other aircraft in use by your Airline on January 19, 1952?

A. It deals with airlift airplanes only.

The Court: Now answer the rest of the questions. Read the question, Mr. Reporter.

(The reporter read the last question.) [304]

A. Well, there's two questions there. You——

The Court: The last one.

A. It deals with the airlift Airplane 601.

The Court: There's another question unanswered. Read the last clause, "and any other."

(The reporter read back as follows: "Q.

* * * * and particularly does it deal with Ship 601 or any other aircraft in use by your Airline on January 19, 1952?")

A. By "any other aircraft" would be any other

(Testimony of Alvin B. Opsahl.)

airlift aircraft that are listed here in this Bulletin.

Q. (By Mr. Riley): Which other ships does it refer to?

A. It refers to 601, 602, 608, 650, 653 and 673.

The Court: Counsel fixed the date of his last inquiry as the 29th of January. I understand another date was alleged as the date of some other event or some event mentioned in the complaint.

Q. (By Mr. Riley): Does that deal with ships which were in use and was it effective on January 19, 1952, or can you tell from your inspection?

A. This was effective August 29, 1951.

Q. Can you tell by——

The Court: Read the last question.

(The reporter read the question as [305] follows: "Q. Does that deal with ships which were in use and was it effective on January 19, 1952, or can you tell from your inspection?")

The Court: There are two questions in one.

Will you strike the last "or can you tell from your inspection." Just strike that.

Now do you wish to put what remains of the question to him?

Mr. Riley: Yes, your Honor.

The Court: Do you understand the rest of the question?

A. Not too clearly.

Mr. Riley: I will strike the last question and rephrase it, your Honor. Thank you.

Q. (By Mr. Riley): Does the document, Serv-

(Testimony of Alvin B. Opsahl.)

ice Bulletin 144, which you have before you, deal with ships in use on January 19, 1952?

A. I don't know for sure, because there could be other Bulletins out after this Bulletin.

Q. Can you tell from the dates and the various descriptions on it whether or not such a bulletin was issued prior to January 19, 1952?

A. This could be superseded several times since that date.

Q. Do you believe that that Bulletin was in effect on January 19, 1952? [306]

A. I believe it was fairly close.

Mr. Koch: I object to the question, your Honor. I——

The Court: The objection is overruled.

Mr. Riley: I offer Plaintiffs' Exhibit 15 in evidence at this time so that I might refer to same on the basis of the witness' testimony.

The Court: 15 is now admitted.

(Plaintiffs' Exhibit Number 15 for identification was admitted in evidence.)

Mr. Koch: I have no objection to it.

The Court: You may proceed to inquire.

Q. (By Mr. Riley): Were your duties relating to the inspection of the life rafts installed in airlift aircraft as distinguished from your regular fleet aircraft different?

A. Was that life rafts?

Q. Yes.

A. The life rafts in the airlift airplanes were

(Testimony of Alvin B. Opsahl.)

practically the same as our regular domestic airplanes.

Q. Were you responsible for the inspection of life rafts installed in Ship 601? A. Yes.

Q. Were you required to see that they were [307] installed in the proper locations?

A. That's our duty, yes.

Q. Do you know whether or not this was accomplished?

A. Yes. If it wasn't accomplished according to the charts in the airplane, the airplane wouldn't have left the ground.

Q. Is it your responsibility to see that the ditching folders which are installed in the aircraft illustrate the proper location of the life rafts?

A. It's the inspector's duty to see that those folders are aboard the aircraft and see that they are the right type, yes.

Q. Whose duty is it to see that the folders pertain to the particular configuration of aircraft?

A. It's the inspector's duty.

Q. Do you know whether or not the folders placed aboard the aircraft were relating to the particular configuration of aircraft in question in Ship 601, which crashed on January 19, 1952?

A. They were the correct folders.

Q. Did you examine them personally?

A. No.

Q. Who did?

A. That's a hard question to answer because

(Testimony of Alvin B. Opsahl.)

there was quite a number of inspectors. One of our inspectors did that. [308]

Q. Is it your responsibility to see that life jackets are placed aboard the aircraft?

A. That's Inspection's responsibility, yes.

Q. And was this accomplished? A. Yes.

Q. Was it your responsibility to see that flares and Very pistols are placed aboard the aircraft?

A. By "flares"—what do you mean by "flares"? Do you mean parachute flares?

Q. Are parachute flares required as part of the emergency equipment?

A. That's required on all aircraft, all aircraft flying at night time.

Q. Were aircraft——

The Court: Will you pause a moment.

How do you spell the word before you mentioned the word "flares," that type of flare?

A. "Parachute"?

The Court: "Parachute," yes. I wish you would speak a little more slowly and articulate your syllables a little bit more.

A. All right. Thank you. A parachute flare is never taken off the airplane. The only time it ever comes off the airplane is during an operational overhaul. [309]

That is always on the airplane.

The Very pistol on the airlift airplane, it stayed on those airplanes all the time.

The Court: What do you mean by "airlift airplanes"?

(Testimony of Alvin B. Opsahl.)

A. An airlift airplane is the airplane that Northwest Airlines leased from the other operators for this specific airlift during the Korean War.

The Court: "Leased," did you say?

A. Yes, leased.

The Court: Do you use the words "airlift airplanes" as distinguished from those airplanes owned as well as operated by the defendant corporation?

A. Yes, sir.

The Court: You may proceed.

Q. (By Mr. Riley): Were these airlift aircraft maintained in any different manner? Were any different standards—strike the question.

Were any different standards of maintenance and inspection applied to airlift aircraft than regularly assigned aircraft of the airline in January of 1952?

A. No different standards. They were equal standards.

Q. All right. Do you know whether or not the [310] proper number of life jackets were placed aboard Ship 601 before it departed for the Orient?

A. Yes.

Q. Do you know what type of jackets were installed aboard the aircraft?

A. Goodyear Life Jackets.

Q. How many types of life jackets were in use by Northwest Airlines during January of 1952?

A. There were two different types, the Goodyear and the Air Cruiser.

(Testimony of Alvin B. Opsahl.)

The Court: Were they on this ship on the date of this accident, if you know?

A. There was just one type on, yes.

The Court: That is what you are inquiring about, is it not?

Mr. Riley: Yes.

The Witness: There was never any mix-up in life jackets. We're very particular on life jackets.

The Court: Could you say just what type was on that ship on the date of the accident?

A. The Goodyear type.

Mr. Riley: Would the bailiff show the witness Plaintiffs' Exhibit 13?

The Court: That will be done. [311]

(The exhibit was handed to the witness.)

Q. (By Mr. Riley): Do you know whether or not this was the type of folder which was installed aboard Ship 601 before it departed for the Orient?

A. No, I couldn't answer that question.

Q. Do you know whether or not this was the type that was in use in January of 1952?

A. There doesn't seem to be a printed date on this folder that I can see, so I do not know.

Q. Referring to the exhibit, would you indicate where the life rafts are supposed to be located in accordance with the exhibit?

A. According to this folder?

Q. Yes.

A. This folder here lists two twenty-man life rafts forward of the cabin door on the left-hand side.

(Testimony of Alvin B. Opsahl.)

Q. Do you know where the life rafts were located in Ship 601?

A. Not without looking at the Service Bulletin and other information.

Mr. Riley: Would the bailiff show the witness Exhibit 14?

The Court: That will be done.

(The exhibit was handed to the witness.)

The Court: You should say whether it is [312] Plaintiffs' or Defendant's.

Mr. Riley: Thank you, your Honor. Plaintiffs' Exhibit 14.

A. Well, this chart here for the short time I've looked at it doesn't show the location of the life vests, or life rafts, rather.

Q. (By Mr. Riley): I direct your attention to the center bottom portion of the exhibit, and ask you to read to yourself what reference is made to Ship 601, and see if you are able then to determine the location of the life rafts in Ship 601, according to Plaintiffs' Exhibit 14?

A. This last line is incorrect.

The Court: I believe that is not in the question. That might come out—if the question should be asked, then comment if you feel there is some comment needed.

A. Would you repeat that question, please?

Mr. Riley: Will the reporter read the question back?

(The reporter read the question as follows:

“Q. I direct your attention to the center bot-

(Testimony of Alvin B. Opsahl.)

tom portion of the exhibit, and ask you to read to yourself what reference is made [313] to Ship 601, and see if you are able then to determine the location of the life rafts in Ship 601, according to Plaintiffs' Exhibit 14?")

A. I would be unable to.

Q. (By Mr. Riley): Is there anything on that exhibit which enables you or in the center portion of it which enables you to locate the life rafts according to Plaintiffs' Exhibit 14? A. No.

Mr. Riley: May Plaintiffs' Exhibit A-15 be handed to the witness, please? That's the Pre-Trial Order.

The Court: That will be done.

(The exhibit was handed to the witness.)

The Court: I think the Court ought now to detach it from the Pre-Trial Order.

Mr. Riley: I think perhaps it should be, your Honor. It's been admitted as an exhibit.

The Court: At this time and following its admission in evidence during this trial, Plaintiffs' Exhibit A-15 is now detached from the Pre-Trial Order previously in part identifying it, to which Pre-Trial Order that exhibit was attached, and it may hereafter be admitted, filed and kept as any other exhibit is, independent of the Pre-Trial Order.

Q. (By Mr. Riley): Will you examine the sketch attached to Exhibit A-15, and tell us what you are able to determine as to the location of life rafts aboard Ship 601?

A. Yes. As per the sketch here, the two life rafts

(Testimony of Alvin B. Opsahl.)

are aft of the cabin door on the left-hand side.

Q. Now, what other rafts are stowed aboard the aircraft?

A. We had a fifteen-man raft, or we did have a fifteen-man raft in the companionway. That's in the control cabin of the aircraft.

Q. What installations are inside the control cabin?

A. You mean all the installations?

Q. Yes.

A. Oh, we have the cockpit—I mean, we have a seat for the pilot, a seat for the co-pilot and navigator, and the radio rack is right behind the left-hand part of the control cabin, and we have cabinets there for various manuals. The raft is kept up in that area.

Q. How is the raft stowed in that cabin secured? Can you tell from referring to the sketch?

A. Yes. According to the sketch, this fifteen-man raft is stowed on the right-hand side of the control cabin. [315]

Q. Is it held in place by any installation of any kind?

A. This says, "No tiedon." Where there's no tiedon, it's evidently in a cabinet where you can slip the raft in and out. This raft is crossways in the fuselage or the control cabin of the aircraft, so in danger of ditching this raft would not move out of its location.

Q. What would happen to it if it were not in a cabinet?

(Testimony of Alvin B. Opsahl.)

A. If it were not in a cabinet, not tied down?

Q. Yes. A. Well, it would shift.

Q. And on impact could you describe what might happen to it?

A. Well, the only thing I would know is what I have read in the newspapers of these ditchings the last few years.

Mr. Koch: Just a minute, please.

The Court: Do not say what you have read in newspapers.

Ask him another question.

Q. (By Mr. Riley): Have you ever attended ditching school as conducted by the defendant airline? A. No.

Q. Do you know why the rafts are installed, their purpose? A. Yes. [316]

Q. Does the defendant airline have any training course for its supervising safety inspectors, to familiarize them with the problems of survival in the case of an abandon-ship operation, or ditching?

A. We have no instructions for training the supervisor, like myself. We have training for our pilots, co-pilots, flight engineers, stewardesses, stewards, very elaborate training.

Q. Would you estimate the weight of this raft?

A. This fifteen-man raft?

Mr. Koch: Just a minute, please.

Your Honor, the raft weights appear right on the exhibits, and I think that's the best evidence.

The Court: The objection is overruled.

(Testimony of Alvin B. Opsahl.)

A. A fifteen-man raft is 88 pounds.

Q. (By Mr. Riley): And what are the weights of the twenty-man raft?

A. A twenty-man raft is 110 pounds.

Q. Do you know whether or not these will float when they are not inflated?

A. I don't know.

Q. I didn't understand.

A. I don't know. [317]

Q. Are your stewardesses training to lift these things alone? A. No.

Q. Could a stewardess ordinarily be expected to lift one of these rafts?

Mr. Koch: I object to the question, your Honor.

The Court: The objection is overruled. You may answer.

A. It's a two-man job to lift any raft. It could be done in an emergency.

Q. (By Mr. Riley): What emergency lighting was installed in Ship 601 before it departed for the Orient?

A. The way I remember that, there was two emergency lanterns in that aircraft that came with the aircraft from TWA in Kansas City, Missouri.

Q. What kind of lanterns are they?

A. They are manually controlled flashlight lanterns, flashlight battery lanterns.

They are approximately, oh, three inches wide by five inches tall, and about an inch and a half deep.

(Testimony of Alvin B. Opsahl.)

Q. These are flashlights, in effect. How many cells?

A. I imagine—I don't know for sure. [318]

Mr. Koch: I object again to Counsel testifying as to what kind of lights they are.

The Court: That objection is sustained. Avoid any statements like that.

Q. (By Mr. Riley): Do you know where these were stowed?

A. One was stowed in the front of the cabin, and the other was stowed by the main cabin door.

Q. Do you know whether this installation was as required by Civil Aeronautics regulations?

A. Yes.

Q. Do you feel that this is a sufficient supply of emergency lighting in an aircraft?

Mr. Koch: I object.

A. At that time, yes.

Mr. Koch: Just a minute. When I object, I wish you wouldn't answer the question.

The Witness: Okay.

Mr. Koch: I object, your Honor, because this man is not an expert, and what he feels isn't relevant to the issues of this case, or properly admitted in evidence.

The Court: The objection is overruled. I believe the witness already answered it.

Mr. Koch: I didn't hear the answer.

The Court: Will you read it? [319]

(The reporter read the last answer.)

The Court: Court will now be at recess until one-thirty.

I wish all those connected with this case to return when for further proceedings.

(Thereupon, at 12:00 o'clock noon, a recess herein was taken until 1:30 o'clock, p.m.) [320]

Thursday, March 28, 1957, 1:30 O'Clock, P.M.

(All parties present as before.)

The Court: Mr. Koch, did you have something?

Mr. Koch: Your Honor, may Mr. Pitcher be excused?

The Court: Is there any objection?

Mr. Riley: No objection, your Honor.

The Court: Mr. Pitcher may be excused, and may return to his work if that is his wish.

(There was a discussion with reference to excusing the witness Cox.)

Mr. Riley: At this time, if the Court please, I would like to interrupt the testimony of Mr. Opsahl, and I would like to ask permission for Mr. Murphy, my co-counsel, to examine Mrs. Bloth, who is here from Alamogordo, New Mexico.

The Court: You may do that.

Mr. Riley: And of course when Counsel completes his cross examination, he may examine her as his own witness in cognizance of the fact that she will not be present later, and we will ask that she be excused at the conclusion of her testimony today. [321]

The Court: Will you please call this witness now.

Mr. Riley: Mrs. Bloth, please.

The Court: Co-counsel may interrogate this witness.

FYRN BLOTH

called as a witness by plaintiffs, being first duly sworn, was examined and testified as follows:

Direct Examination

Q. (By Mr. Murphy): Will you state your name for the record? A. Fyrn Bloth.

The Court: I did not get it, I am sorry.

A. Fyrn Bloth.

The Court: F-e-r-n?

A. F-y-r-n B-l-o-t-h.

The Court: Fyrn Bloth?

A. Yes, sir. [322]

The Court: You may proceed.

Q. (By Mr. Murphy): And your residence now?

A. Alamogordo, New Mexico.

Q. Would you spell that for the Court, please?

A. I'm a little nervous. Alamogordo, New Mexico, A-l-a-m-o-g-o-r-d-o.

Q. Mrs. Bloth, you were acquainted with John Waldrop, Sergeant John Waldrop?

A. He was my brother-in-law.

Q. Your brother-in-law? A. Yes, sir.

Q. Were you acquainted with him at that time before January 19, 1952? A. Yes, sir.

Q. And why was it that you were acquainted with him?

A. Well, he married my sister.

Q. And what was your sister's name, please?

Testimony of Fyrn Bloth.)

A. Her name before she married was Lola Faye Kelley.

Q. Her first name again?

A. Lola Faye Kelley.

Q. And she was called by what? A. Faye.

The Court: And likewise your maiden name was Kelley, was it?

A. Yes, sir. [323]

Mr. Murphy: Thank you, Your Honor.

The Court: And Mr. Waldrop, the deceased, married your sister, is that right?

A. Yes, sir.

The Court: Was he the husband of your sister at the time of his death? A. Yes, sir.

Mr. Murphy: Thank you, Your Honor.

Q. (By Mr. Murphy): What time was it that Sergeant Waldrop married your sister?

A. Do you want the date?

Q. The approximate date.

A. They were married March the 3rd, 1951.

Mr. Murphy: If the Court please, I would like to offer this for identification.

The Clerk: It will be Plaintiffs' Exhibit No. 16.

(A marriage license was marked Plaintiffs' Exhibit No. 16 for identification.)

Q. (By Mr. Murphy): Plaintiffs' Exhibit No. 16, Mrs. Bloth, will you identify it, please?

The Court: May I suggest that one of the proper form questions to seek that information is, "State what, if you know, that is."

(Testimony of Fyryn Bloth.)

Q. (By Mr. Murphy): Will you state what that is, if you [324] you know, Mrs. Bloth?

The Court: What kind of an instrument is it? What do you call it?

A. It's a marriage license.

The Court: Is it a license?

A. Yes, sir.

The Court: You may inquire.

Q. (By Mr. Murphy): And to whom, if anyone, was that license made out?

Mr. Koch: I object, Your Honor. The exhibit is not in evidence.

The Court: That objection is sustained.

Q. (By Mr. Murphy): Would you please, Mrs. Bloth,—

The Court: You can ask her of what persons, if any, she knows were the ones referred to in that exhibit, if you wish something like that, without asking her the contents of it.

Q. (By Mr. Murphy): What persons, if any, are referred to in that exhibit?

A. It's the license for rites of matrimony for John Milton Waldrop and Lola Faye Kelley.

Q. What date if any is referred to on that instrument, please?

A. Do you want the completion date?

The Court: No, just state if you know the [325] date when the license was issued, if it was a license.

A. The license was issued the 27th day of February, 1951.

The Court: State what if anything else in the

(Testimony of Fyrn Bloth.)

way of the ceremonial part of it took place in pursuance of the license so far as that instrument indicates. Don't read the words out loud of the paper.

A. Well, the ceremony was performed by——

The Court: What kind of a ceremony?

A. The marriage ceremony was performed on March the 3rd, 1951.

The Court: Is that the same day, as you understand it, as the date of the issuance of the license?

A. No.

The Court: Or later?

A. It's later.

The Court: Very well.

Q. (By Mr. Murphy): Did you give me that instrument that you now have before you, Mrs. Bloth?

A. Yes, I did.

Q. Where was it that you obtained it?

A. In my sister's papers.

Q. And by "your sister" you are referring again to whom? [326]

A. Faye Waldrop.

Mr. Murphy: If the Court please, I would like to offer that exhibit, Plaintiffs' Exhibit No. 16, into evidence.

Mr. Koch: May I examine it, your Honor?

The Court: You may look at it.

(The exhibit was handed to Mr. Koch.)

Mr. Koch: Is this the original license that was issued by the officials of Texas?

A. Well, I suppose it is.

(Testimony of Fyrn Bloth.)

Mr. Koch: Or is this a copy that you obtained from the Registrar of Licenses in Texas?

A. I wouldn't know. I didn't obtain it, I just found it in her papers.

Mr. Koch: Your Honor, I object to this exhibit because it shows right on the face of it that it was received—no, I believe I'm in error. If this is an original certificate I have no objection to it. I just don't know.

The Court: Were you able to find any other certificate or document issued by a public official which purported to be a license or a certificate of marriage ceremony celebrated in pursuance of any license? [327]

A. Well, I don't have the certificate of marriage, sir, but I do have another copy, but I believe that it's a typewritten copy. May I get it?

The Court: Yes, you may step down. See what other copies you have. Let your Counsel, Mr. Murphy, see them. Let him see them, please.

A. O. K. It's a typewritten copy.

(Brief pause.)

The Court: Let Mr. Koch compare these two. The one with the tab is the exhibit, the other is not.

Mr. Murphy: I believe this is just a typewritten copy, Your Honor.

The Court: Note that filing mark down below, Mr. Koch, on the left-hand corner of Plaintiffs' Exhibit 16 for identification.

Mr. Koch: Yes, Your Honor.

(Testimony of Fyrn Bloth.)

The Court: That indicates, does it not, that it is an official document?

Mr. Koch: I think it does, Your Honor. It would appear to be.

The Court: The chances are—let me see it. Does it show any recording citation?

Mr. Koch: No, Your Honor.

The Court: For the life of me I do not see how it could be—— [328]

Mr. Koch: It looks like a license that was never filed, Your Honor.

The Court: And yet—I believe that what has been marked and tendered for marking as Plaintiffs' Exhibit 16 is the original marriage license and the original certificate of the celebration of the rites of marriage between John Milton Waldrop and Lola Faye Kelley, and I believe that the second paper is merely in part a——

Mr. Koch: It appears to have recorded information on the second one, Your Honor.

The Court: ——a copy of the first, and I suspect that at the request of the parties, in pursuance of the practice in the local office where licenses and certificates of marriage are filed finally after the performance of the marriage ceremony, that there has been used for recording a copy of the original and the original was left in the possession of the parties.

Mr. Clerk, continue to use this paper and do not use any filing mark. It is possible that eventually someone will wish to substitute a copy of this

(Testimony of Fyrn Bloth.)

Plaintiffs' Exhibit 16, and I call your attention to the fact that what Mrs. Bloth referred to as a copy is not because the certificate on the back page is not filled out by the County Clerk. There is something [329] about it. The two forms are not exactly one and the same, while the printing on them is the same.

I return to the witness the so-called copy that she mentioned. It may be that the original is of vital interest to the witness or to someone representing the parties to this marriage in some other place, like possibly Texas or New Mexico, or wherever either one of such parties may be.

Is your sister living?

A. No, sir, she is deceased.

Mr. Murphy: This is admitted in evidence, Your Honor?

The Court: There being no objection, Plaintiffs' Exhibit 16 is now admitted.

(Plaintiffs' Exhibit No. 16 for identification was admitted in evidence.)

Q. (By Mr. Murphy): Did Faye Waldrop and John Waldrop have any children?

A. Yes, they had one daughter.

Q. And what was her name, please?

A. Judith Ann Waldrop.

Q. Judith Ann?

A. Judith Ann Waldrop.

Q. And is the young girl sitting back here that girl?

A. Yes, that's Judy sitting back there. [330]

(Testimony of Fyrn Bloth.)

Q. And what is Judith Ann's age now?

A. She was five in January.

Q. She was five in January? A. Yes.

The Court: Which of the persons mentioned is the daughter of the decedent persons John Milton Waldrop and Faye Waldrop, the smaller of the two or the larger one?

A. The little girl.

The Court: That little girl, about five years old? A. Yes, sir.

The Court: That is sufficient. Thank you very much. I have no objection to your letting her sit in the—let her come up here and sit in these chairs, both of you. Would the lady come with the little girl?

(A lady and little girl took seats in the jury box.)

The Court: What is her name now, the little girl's name?

A. Judith Ann. We call her Judy.

Q. (By Mr. Murphy): Were there any other children born to the—— A. No. [331]

Q. At what time was this birth?

A. The 22nd of January, 1952.

The Court: Do you spell it A-n-n or a different way? A. A-n-n, yes, sir.

The Court: Born when, please?

A. January 22, 1952.

The Court: 1952? A. Yes, sir.

The Court: You may inquire.

(Testimony of Fyrn Bloth.)

Mr. Murphy: Would the clerk please mark this for identification.

The Clerk: It will be marked Plaintiffs' Exhibit No. 17.

(A birth certificate was marked Plaintiffs' Exhibit No. 17 for identification.)

Q. (By Mr. Murphy): Can you identify that document, Mrs. Bloth?

A. It's a certificate of birth.

Q. Is it certified? A. Yes.

Q. By whom?

A. By M. D. Hornedo, H-o-r-n-e-d-o. He's in the Health Department, Department of Vital Statistics.

Q. If there's a date on it, would you—— [332]

A. January 22, 1952.

Q. And that is the date of birth on the document before you?

A. The date of birth, yes, sir.

Mr. Murphy: If the Court please, I would like to enter Plaintiffs' Exhibit No. 17 in evidence. It's a certificate of birth.

Mr. Koch: No objection.

The Court: Admitted.

(Plaintiffs' Exhibit No. 17 for identification was admitted in evidence.)

Q. (By Mr. Murphy): And whose certificate of birth was that?

A. Judith Ann Waldrop's.

Q. And the parents indicated therein are who?

(Testimony of Fyrn Bloth.)

A. John Milton Waldrop and Lola Faye Waldrop.

Q. Thank you. Would you state again the date of the birth? A. January 22, 1952.

Q. And what day was it that the deceased John Waldrop died? A. January 19, 1952.

Q. The birth was after his death?

A. That's right.

Mr. Murphy: May I have this marked for [333] identification, please.

The Clerk: It will be marked Plaintiffs' Exhibit No. 18.

(A Certificate of Honorable Service was marked Plaintiffs' Exhibit No. 18 for identification.)

Q. (By Mr. Murphy): Mrs. Bloth, can you identify that instrument you have in your hand?

A. It's from the Army of the United States and it's an honorable service and it certifies that Sergeant John M. Waldrop died while in the service.

Mr. Koch: I object to this testimony, Your Honor. It's just a matter of identification.

The Court: Yes, I think so.

Mr. Murphy: If the Court please, I would like to offer Plaintiffs' Exhibit No. 18 into evidence.

Mr. Koch: Was that sent to you, Mrs. Bloth?

A. No, it was sent to my sister.

Mr. Koch: How does it come into your possession?

A. Because I have my sister's possessions.

(Testimony of Fyrn Bloth.)

Mr. Koch: I don't have any objection to it, Your Honor.

The Court: It is admitted.

(Plaintiffs' Exhibit No. 18 for identification was admitted in evidence.) [334]

Mr. Murphy: I would like to have this marked for identification.

The Clerk: It will be marked Plaintiffs' Exhibit 19.

(A Certificate of Baptism was marked Plaintiffs' Exhibit No. 19 for identification.)

Q. (By Mr. Murphy): Can you identify that?

A. It's a Certificate of Holy Baptism.

Q. Whose certificate?

A. Judith Ann Waldrop's.

Q. Is there a date?

A. On the 7th of June, 1952.

Q. Were you present at the time that certificate was issued? A. No, I wasn't.

Q. Does it show the parents, if any?

A. John Milton Waldrop, Lola Faye Waldrop.

Mr. Murphy: Plaintiff offers Exhibit No. 19 in evidence.

The Court: I do not know what you want it in evidence for.

Mr. Koch: I object to it, Your Honor. It is completely beyond any issues in this case. It is subsequent to the time of the decedent's death. The [335] child is here in court. The identification wasn't made by anybody in her presence when the

(Testimony of Fyrn Bloth.)

baptism was performed and took place, and I can't see that it's anything but self-serving.

The Court: I do not see the materiality of it.

Mr. Murphy: If the Court please, we intend to prove some of the manner of being of the deceased and his family, the nature of his——

The Court: We are not concerned with his family. It is he.

Mr. Murphy: And his wife after his death.

The Court: This objection is sustained.

(Plaintiffs' Exhibit No. 19 for identification was refused.)

Mr. Murphy: I will withdraw the exhibit, if the Court please.

The Court: Is there any objection?

Mr. Koch: None, Your Honor.

The Court: It is withdrawn and will be physically returned to the Counsel who offered it.

Q. (By Mr. Murphy): Do you know where John Waldrop died? A. Well, I——

Mr. Koch: I object, Your Honor. The answer must necessarily call for a hearsay response. [336]

The Court: I do not see how there is any escape from that.

Mr. Murphy: The question is withdrawn. Strike it, please.

The Court: Is there any dispute about the fact of his being a passenger on the plane?

Mr. Koch: There had been at one time, but I don't believe there is any issue on that now.

(Testimony of Fyrr Bloth.)

Mr. Murphy: It was my understanding that there was a dispute, your Honor.

The Court: Then the Court will take it as admitted that he was at the time of the landing of this plane in question at Sandspit, Alaska, a passenger on board that plane and that his body has not been since found or accounted for. Is that the fact?

Mr. Koch: No, Your Honor. As I understand it his body was found and was returned and buried.

The Court: Then with that understanding——

Mr. Koch: Isn't that true, Mr. Riley?

Mr. Riley: Yes, as long as that is our understanding. At one time Counsel wouldn't even admit that this man was killed in the airplane.

The Court: Well, he does admit it now.

Mr. Riley: If it is admitted now we are happy to withdraw the question. [337]

The Court: Very well.

Mr. Koch: Your Honor, the military service record that was obtained and is in the court's files discloses these things, and now that we know that we don't question it further.

The Court: Let the record show that the decedent Waldrop was a passenger on board this plane at the time of the accident and lost his life in that connection.

Q. (By Mr. Murphy): What was Sergeant Waldrop's rank at the time of his death?

A. He was a sergeant first class.

(Testimony of Fyrn Bloth.)

Q. And how long had he been in the Army prior to his death?

A. Well, I believe he had been in the Army—you mean the U. S. Army?

Q. Yes.

A. About ten years, or was it three years—three years actually in the Army.

Q. Was he in other services, is that what you mean?

A. Yes. He was in the Marine Corps, and I don't know whether the merchant marines is considered a branch of the Army or not, or a branch of the service.

Q. Was he in the merchant marine?

A. He was in the merchant marine. [338]

Q. Approximately how long was he in the merchant marine?

A. All three together he was in approximately ten years, in the three that I named.

Q. Are you married, Mrs. Bloth?

A. Yes, I am.

Q. And how long have you been married?

A. It will be eight years this June.

Q. To the present Mr. Bloth?

A. That's right.

Q. And when was your marriage, approximately?

Mr. Koch: I object, Your Honor. I can't see the materiality of that.

The Court: What difference does that make, Mr. Murphy?

(Testimony of Fyrn Bloth.)

Mr. Murphy: Your Honor, I'm trying to establish the family relationship of Judy Ann, where she is living now.

The Court: The only family relationship that we are concerned with I think is with the deceased, as between the deceased and his survivors.

Mr. Murphy: Well, it bears, Your Honor, upon some of the issues which must be presented here, I believe, and that goes to the expenses, what it takes to take care of the child where she is living now, how she is being provided for and the home she is in. [339]

The Court: The cost is all that we are concerned with. Nobody is disputing the fitness of the child's present surroundings, I am sure. I think it might be of some interest, if there is admissible testimony concerning the usual and normal cost of the support that is normally required by the survivors of the decedent and how long that will continue, or something to that effect, and what her education may cost, and things like that, Mr. Murphy. That is the thing we are concerned with, I believe.

Q. (By Mr. Murphy): Do you have any children, Mrs. Bloth?

Mr. Koch: I object to that too, your Honor. Whether she has children or not is immaterial.

The Court: The objection is sustained.

Mr. Murphy: If the Court please, Mrs. Bloth we will tend to show will testify as to the expenses as has been pointed out here of raising a child,

(Testimony of Fyrr Bloth.)

and necessarily she must have experience in those expenses and at different ages of children, and her experience will reflect if she has children of her own by which to compare it.

The Court: The objection is sustained.

Q. (By Mr. Murphy): Does Judy Ann live with you at this time?

A. Yes, she does. [340]

Q. At your home? A. That's right.

Q. Which is in New Mexico, as you stated, Alamogordo?

A. Alamogordo, New Mexico.

Q. Was Judy Ann's mother, Faye Waldrop, living at the time of Sergeant Waldrop's death?

A. Yes, she was.

Q. Is she living now?

A. No, she's deceased.

Q. How long after the death of Sergeant Waldrop did she die?

A. She died on March the 29th following his death the previous year on January the 19th.

The Court: It was a little more than a year, is that right? A. Yes, sir.

The Court: What was the date in March?

A. March 29th.

The Court: From the 19th of January to March 29th would be the excess over and above the year that she lived after his death, is that correct?

A. That's right.

Q. (By Mr. Murphy): What was her health at the time of his death?

(Testimony of Fyrn Bloth.)

A. Well, she was expecting Judy Ann and she wasn't in [341] good health. She had a heart condition.

Q. Had she had the heart condition very long before his death?

Mr. Koch: Now, I object to the form of the question, Your Honor. It's leading and——

The Court: Evidence of the extent of damages, that is all this evidence is about, is it not?

Mr. Murphy: Yes, Your Honor. It is our intention, Your Honor——

The Court: How could that bear on what that person was entitled to?

Mr. Murphy: The question bears——

The Court: Would that augment the amount in any way?

Mr. Murphy: We believe so, Your Honor, in that we intend to prove hospital and doctor bills necessary to the care of the deceased's wife after his death which would take away from the care of the child after his death.

Mr. Koch: Well, that's——

The Court: The objection is sustained. May I invite Counsel's attention, when they can reasonably get to it, the Court's desire to hear any evidence that may bear on the cost of the proper care and custody and training, including all reasonable training and [342] including certainly her education, as to this child.

Mr. Murphy: Yes, Your Honor.

The Court: That is very important.

(Testimony of Fyrr Bloth.)

Mr. Murphy: Yes, Your Honor.

Q. (By Mr. Murphy): Has Judy Ann been living with you ever since her mother's death?

A. She has either lived with us or in a house of ours ever since her—in the same town.

Q. In the same town?

A. With her grandparents.

The Court: Would that be your parents?

A. Yes, sir.

Q. (By Mr. Murphy): Then at some times I take it she lives with you and at other times with them. On what occasions if any does she live with them?

A. Well, she lived with them for a period of about two years, but their health is not so that they are able to maintain a home of their own now, so they are all with us.

The Court: Do you have children of your own?

A. Yes, I have a little five year old girl and a sixteen year old girl.

Q. (By Mr. Murphy): At the time when they are not able to provide for her when their health is in a serious condition where they can't, where does Judy Ann stay then? [343]

A. Well, when my mother isn't able to watch after them I take them to a nursery school or the kindergarten, whatever you want to call it.

Q. Do you work, Mrs. Bloth?

A. Yes, I do.

Q. And does your husband? A. Yes.

Q. Do they take care of the child, I mean by

(Testimony of Fyrn Bloth.)

“them” the grandparents, your parents, take care of the child when they can when you’re working? Is that the procedure?

A. That’s right, yes.

Q. And how long do you work each day?

A. I work eight hours, a five day week.

Q. Five day week, eight hours a day?

A. Yes, sir.

Q. You say you take them to a kindergarten then at times when the grandparents aren’t able to provide for them? A. That’s right.

Mr. Koch: Your Honor, I think the question should be a little more objective instead of by Counsel.

The Court: Yes, I think so. Ask her.

Mr. Murphy: I thought I had established that point, Your Honor. I was just going over it.

Q. (By Mr. Murphy): When they are——

The Court: If you have already established it, do not ask her any more. In connection with my sustaining the objection I was advising you of what the proper form might be. If you have already established it, do not go over it any more.

Q. (By Mr. Murphy): Does this having the children in kindergarten happen very often or not?

A. Well, by “often”—Mother has had a major surgery and I’ve had them in kindergarten——

Mr. Koch: I object as not responsive, Your Honor. She was just asked how often.

The Court: Maybe that, if needed, will come out in some other way. How often, can you state directly, Mrs. Bloth?

(Testimony of Fyrn Bloth.)

A. Well, I had them recently about two months in kindergarten. I don't know exactly how I can say how often because it depends on Mother's health, and I don't know exactly how that's going to be in the future, you know.

The Court: How old is she?

A. Seventy-one. She'll be seventy-two in August.

The Court: In your part of the country do you know what it would cost to maintain her in an approved school with proper arrangements and surroundings [345] and care that would be equal or comparable to the kind of care she is receiving now at your home and/or at your father's and mother's home? Have you any idea what it would cost to provide that same kind of care in any other home or school or boarding school or institution, church school or state school or whatever school might be available?

A. Well, I've never priced any school. It would just be an estimate. I don't think you possibly——

The Court: Have you any idea of what it costs you and your husband to give the care that you believe this child receives? In your own mind you might compare what it costs to provide the home that you do provide for your own daughter about the age of this Judy Ann.

A. Well, I'd make an estimate of about a hundred dollars a month. I've never kept any record.

The Court: That is sufficient.

Mr. Koch: I didn't get the answer, Your Honor.

(Testimony of Fyrrn Bloth.)

The Court: She said she would make an estimate of about a hundred dollars a month but that she had not kept records of expenses.

Q. (By Mr. Murphy): Is that cost of a hundred dollars a month for a cost at what age? [346]

A. Well, their present age. Of course they will be going to school year after next.

Q. Their present age being—— A. Five.

Q. Five? A. Yes.

Q. Would this cost increase or decrease or change as the child got older?

A. Well, it will increase, naturally.

Q. Would you speak a little louder, Mrs. Bloth?

A. I'm sorry. It will increase, naturally, as they grow older.

Q. This \$100 a month cost which you referred to, could you explain what that would entail in the way of expenses included in the \$100?

A. Well, there will be their food and lodging, their clothing, and oh, birthdays, Christmases, all the things that children nowadays demand, or not demand, but you want them to have.

Q. Was there any cost or is there any cost when you have the child Judith Ann at kindergarten?

A. Yes, there's a charge of \$2.00 a day per child.

Q. Does that charge include food?

A. It includes their lunch only.

Q. Does the charge—does the cost that you estimated at [347] \$100 a month for the care of

(Testimony of Fyrn Bloth.)

the child include medical and dental and other expenses such as that?

A. Well, they might ordinarily, but Judy has an unusual amount of medical expenses.

The Court: What is her state of health, if you know?

A. She's an asthmatic and she has a number of allergies. She has—right now we're facing a tonsillectomy.

Q. (By Mr. Murphy): Does she take shots or other treatment?

A. She has for asthma. She isn't at the present time.

Q. Could you describe that asthmatic treatment, or not treatment, but condition, and some of the ramifications, if any?

Mr. Koch: I object, Your Honor. The issue that is relevant has been covered.

The Court: Read the question, Mr. Reporter.

(The reporter read the last question.)

The Court: The objection is overruled. If you know what they are, will you state it?

A. Well, we've had her in Oklahoma City and taken her through the clinic there and they prescribed treatment and determined her allergies, and at the present time they believe that she doesn't need treatment, but it's [348] always subject to stir up. We have to be very careful. Any cold could go into an asthma attack.

Q. (By Mr. Murphy): Are these attacks—what is the reaction, if any, to these attacks?

(Testimony of Fyrn Bloth.)

A. Oh, she's very nervous, very—well, she can't sleep. I mean you have to sit up with her all night and she coughs and chokes and can't breathe.

Q. Could you say there has been an average month of medical expense for these conditions you just described?

Mr. Koch: I object to the form of the question.

The Court: Sustained. You can ask her if she knows how much it has been.

Q. (By Mr. Murphy): Do you know how much the medical expenses have been for the treatment you have described?

A. Well, I would say they would average out about ten dollars a month over a year.

Q. That's in addition to the—or is that in addition or a part of the \$100 a month that you specified before?

A. No, that's in addition.

Q. At what age will Judy Ann—do you intend to take Judy Ann and put her in school?

A. Yes. She'll start to school in September after she's six in January.

Q. I see.

The Court: Will that be this fall?

A. No, sir, it will be a year from this fall.

The Court: So that she will not have her sixth birthday before 1958, is that right?

A. Well, let me see. Well, she's five now, 1957. She'll be six, yes, in 1958. She won't start to school until—well, she'll start to school in the fall after she's six.

(Testimony of Fyrn Bloth.)

The Court: She has had her fifth birthday only this past January?

A. This past January, yes. No, it will be '59——

The Court: So it will be '58 before she has her sixth birthday?

A. Yes, sir.

The Court: And after that you say she will not be admitted to school where she lives until the September following as a regular pupil in school?

A. Well, she was five in '57. She'll be six in——

The Court: In '58 in January. [350]

A. Well, it must be seven when they go to school.

The Court: She might go to school this fall, do you think, might be admitted to school this fall?

A. No, because she's only five now.

The Court: That is right. You are right. Then I guess I am wrong.

A. It will be a year from this September that she'll go to school.

The Court: You may proceed.

Q. (By Mr. Murphy): What are your actual expenses now just as to Judy in the way of clothing?

Mr. Koch: Your Honor, I object to the question. Mrs. Bloth already testified that she didn't keep records, and her estimate was \$100 a month inclusive of clothing and all the other things.

The Court: You might inquire further, if there is any doubt about it, whether the hundred dollars she has already mentioned as an estimate includes clothing.

(Testimony of Fyrn Bloth.)

Q. (By Mr. Murphy): Does the \$100 that you have already estimated a month include such things as clothing and food?

A. Yes, it includes the essentials, clothing, food, [351] shelter.

Q. Are there child welfare departments or agencies where you live? A. Yes, sir.

Q. Do you know what they allow for a child of Judy's age in the way of expenses in a foster home?

Mr. Koch: I object to the question, Your Honor. There is no evidence that she's been in a foster home and the answer would be hearsay.

Mr. Murphy: Your Honor, we intend to show——

The Court: I would be inclined to think the information would be pertinent, but I am not sure whether she is qualified to answer or not. You might ask her whether she has made any investigation about it.

Q. (By Mr. Murphy): Have you made any investigation?

A. Yes, I did. I asked my attorney there in Alamogordo one time what the allowances were, and he said \$75 a month.

Mr. Koch: I——

The Court: Yes, it will have to be stricken, what he said, Mrs. Bloth. A. Oh.

The Court: But it might be different if you care to ask her that she feels that she knows anything about the cost and if she has an opinion as

(Testimony of Fyrn Bloth.)

to what it [352] costs, then that might be material, might be admissible.

Q. (By Mr. Murphy): Do you have an opinion and know what allotment these agencies will give, if any? A. \$75 a month.

Mr. Koch: May I ask a question at this point, Your Honor?

The Court: You may do so on cross examination, not now, Mr. Koch.

Q. (By Mr. Murphy): What is the nature and what would it cover, this expense of \$75 a month?

Mr. Koch: I object, Your Honor. I don't believe that there has been any proper foundation laid for the questions about foster home care. It's just heaping one——

The Court: Do you insist upon pressing the matter? She has already been permitted to say what she believes it would cost upon the investigation she has made. She said \$75 a month to keep her in a foster home. That seems to cover it.

Mr. Murphy: Very well, Your Honor.

Q. (By Mr. Murphy): What expenses do you contemplate changing, as you stated before they would, when Judy Ann reaches school age, grammar school age?

A. You mean additional expenses?

Q. Yes, additional, if there are any. [353]

Mr. Koch: I object to that question too, your Honor. I don't think there is any basis for presently estimating the cost of expenses that are two years hence.

(Testimony of Fyrrn Bloth.)

The Court: The objection is overruled, but I am not sure that she could be permitted to state what the cost at that stage in the future might be, Mr. Murphy, but if she can answer the question directly she may answer. Read the last question that is before the witness.

(The reporter read the last two questions.)

A. Well, there will be additional clothing, naturally. At the present time I keep the children in jeans, and there will be a dress a day, there will be additional wear and tear on their clothes, I suppose. There will be lunches and transportation, all the additional expenses that goes with sending a child to school.

Q. (By Mr. Murphy): What does it cost you to send your own daughter to school additional?

Mr. Koch: I object to the question, unless there is some evidence that there are records of such expense maintained.

The Court: In the first place you should ask her to give information like that only if she knows. [354] It would be much more appropriate for you to ask her if she has any information about it. Then if she indicates in the affirmative, then it would be appropriate to ask her something about it. Try to have these fundamentals in mind, Mr. Murphy, please. In other words, if you ask a person like me that question it wouldn't be competent for me to answer because I have not investigated it sufficiently to do so.

Mr. Murphy: I thought, your Honor, that——

(Testimony of Fyrn Bloth.)

The Court: Find out from her if she knows about this. If she does, you may go into it.

Mr. Murphy: Well, Mr. Riley probably—would it be all right for Mr. Riley to ask her?

The Court: I would rather you to proceed now. The arrangement was for you to interrogate this witness.

Q. (By Mr. Murphy): Do you know what it costs to send and maintain a girl in grammar school?

A. Well, I have a daughter that's a sophomore in high school and naturally I put her through grammar school. As I say, I don't keep records of it, but I can make an estimate.

Q. Well, based upon what you know would you please say what they are? [355]

Mr. Koch: I object, your Honor.

The Court: You said, "State what they are." She may state what her estimate is based upon what she has done, and if you wish to register an objection to it, you may.

Mr. Koch: I do object, your Honor.

The Court: Wait until he has finally stated the question and then you may make your objection.

Q. (By Mr. Murphy): Based upon what you know would you estimate what the additional costs are to maintain a girl in grammar school?

A. Well, I would say—

The Court: Now wait just a moment.

Mr. Koch: Your Honor, I'm forced to object. I think that if this testimony could come in it

(Testimony of Fyrr Bloth.)

would be of benefit to everybody, but the way it is presented, she testifies first that she doesn't know and hasn't kept records of the cost of maintaining a little child, but she estimates that at \$100 a month and enumerates the things that it covers, and that's difficult for her to do because of the physical condition of the child fluctuating, and so on. Now she is asked to project expenses which she is not presently incurring to a time two years hence when expenses in the form of transportation to school, [356] lunches and different clothes will become involved.

We are not considering the fact whether they are public schools, whether they are private schools, whether there is any free transportation or not, whether the lunches aren't lunches she is presently paying in her kindergarten tuition, and now she is using as a basis of comparison what it costs her to keep a child who is in high school in high school, and I don't understand how this estimate can take into account the cost of apportioning these joint expenses of the shelter and home among the three children, the husband and herself, and I can't feel that this testimony is of any value.

The Court: I think you have covered it sufficiently.

Mr. Murphy: If the Court please, this is a mother. She has a daughter of comparable age. She has one in school. Is she an expert? She is.

The Court: The Court believes that she will confine her statement to her estimate, and she does

(Testimony of Fyrn Bloth.)

not intend to say that these are absolute facts. It amounts to no more than her opinion, which is not binding upon the Court. [357]

The objection is overruled.

Will you read the question, Mr. Reporter?

(The reporter read the last question as follows: "Q. Based upon what you know would you estimate what the additional costs are to maintain a girl in grammar school?")

A. Well, I would estimate about half again, maybe.

Q. (By Mr. Murphy): Would you clarify what you mean by "half again"?

A. Well, I estimated a hundred a month, and maybe probably half again that much.

The Court: I think we all understand that phrase. That is sufficient.

Q. (By Mr. Murphy): And does that again include clothing, food, medical and other expenses you enumerated before? A. Yes, sir.

Q. Could you estimate what the expenses would be in addition to those with a base of \$100.00, as you estimated before, could you estimate what the additional cost would be, if any, upon a girl going to high school?

Mr. Koch: I object, your Honor. [358]

I don't understand the question at all.

Mr. Murphy: Strike it. I will rephrase it.

The Court: Ask her if she has an opinion about what it would cost for high school training?

Q. (By Mr. Murphy): Do you have an opinion

(Testimony of Fyrr Bloth.)

about what it would cost for maintaining a girl in high school?

A. Oh, I'd say—you mean, in comparison with the original hundred?

Q. Well, do you have an opinion on it? You can answer that yes or no. A. Yes.

Q. What would that opinion be, in addition to the one hundred dollars we talked about before?

A. Well, based on my experience with my girl, I'd say they're about double when they get in high school.

Q. Could you give some particulars upon which you base your estimate for the increase in high school?

The Court: I do not think I would do that, Mr. Murphy. The Court takes the opinion like any other opinion. I do not think you had better go into that. It is a little bit too contingent.

Q. (By Mr. Murphy): Did you personally [359] know Mrs. John Waldrop? A. Certainly.

Q. Did she attend school?

A. Yes, she went to——

Mr. Koch: I object, your Honor, to the educational background of Mrs. Waldrop. I can't see its materiality.

The Court: Mr.?

Mr. Murphy: Mrs.

The Court: I am not so sure but what that would have some bearing on her right to support, and the kind of support that she would be entitled to dur-

(Testimony of Fyrn Bloth.)

ing the time of her life after his death, so the objection is overruled.

A. Yes, she attended Texas Western College in El Paso.

The Court: The Court has already understood that there is before the Court that she was a person not of sound body but that she was an ill person, and that she had heart trouble.

Mr. Murphy: Thank you, your Honor.

The Court: Do Counsel understand, as the Court does, that that much of the evidence is before the Court? That much of the evidence is before the Court, as I understand it.

It was the particularities of hospital bills [360] and things like that that the Court declined to go into on objection; is that it?

Mr. Koch: I thought that that question about her health the Court sustained an objection to. I was just checking my notes to——

The Court: What the Court meant to sustain was the tendency, which I thought was showing up, to go into particular expenses like hospital bills, and so on.

If that is not in the record, Counsel may have that in mind, the part that I spoke of as having an impression was in the record.

What was her general state of health, the wife of Mr. Waldrop, your sister, Mrs. Faye Waldrop?

A. She was a semi-invalid.

The Court: And what type of illness did you know of that she had?

(Testimony of Fyrn Bloth.)

A. She had a rheumatic heart.

The Court: Do you know how long she had had that heart condition?

A. She had had it that we know of since about 1949.

The Court: Do you know of any other condition in her health that is substantial enough to [361] justify your mentioning it?

A. No.

The Court: What was the decedent's attitude, if you know his attitude, towards providing proper support for your sister as his wife?

A. Well, he was very much in love with Faye, and they wanted a family even though they knew it would be at the risk of her health, and he was very proud of the fact that he was going to——

The Court: Yes, but what I want to know is what kind of support did he provide for her?

A. Well, he provided her with the support that he could from his pay. I mean——

The Court: Of course I don't know what that was, you see. I do not know that. I am not acquainted with that.

A. Yes.

The Court: What kind of pay did he get, and what kind of work did he do, if any, before he married your sister?

A. He was in the Army when he married my sister, and he made her an allotment.

The Court: How much was that, do you [362] know?

(Testimony of Fyrn Bloth.)

A. I believe it was around seventy-some-odd dollars a month, was the allotment.

The Court: How long did she enjoy that, if you know?

A. Until the time of his death.

The Court: Do you think of any other type of support or any other high spot in the character or nature of the support he gave your sister as her husband? If so, will you state what it was.

A. I don't believe I understand.

The Court: It is a question not of how much he loved your sister, or how much she loved him, but it is a question of how much money she lost on account of his death.

A. Well, she——

The Court: And that is measured in large part on his support of her, and that depends in part upon the type of support.

What kind of support did he provide for her?

A. Well, he was her sole support. In addition to the allotment, why, he sent money to her. She——well, he was her sole support, period. [363]

The Court: Do you know how much pay he got in the last year or so of his service?

A. Well, he was a Sergeant First Class, and I believe their base pay is about \$234.00 a month.

The Court: Do you know how much of that salary of that size he allotted to his wife?

A. The standard allotment is around \$70.00. I don't know the exact figures, but——

(Testimony of Fyrn Bloth.)

The Court: Are you saying that to your knowledge he sent money to her besides that?

A. Yes, sir.

The Court: During the time of their married life, was there any part of it when he was not in the service and away from home?

A. He was in the service the entire time, but he was at home a short time after they were married before he was sent over to Korea.

The Court: How long, about, were they married?

A. Well, they were married not quite a year.

The Court: During that time did he ever provide her with a house or a home of their own, [364] either through personal ownership of the property or his renting property for her?

A. Yes, they rented right after they were married until the time that he was sent off. He was sent off to school shortly after they were married.

The Court: What school?

A. To an Army school.

The Court: How much education did he have? What was the extent of his schooling?

A. Well, according to records, he didn't finish high school.

The Court: How old was he when he died, if you know?

A. Twenty-four years old.

The Court: How old was you sister when she died, if you know?

A. She was twenty-six.

(Testimony of Fyrn Bloth.)

The Court: She was about a year older than he was when they were married?

A. Yes, sir.

The Court: You may inquire about any other thing in particular that will bear upon the pecuniary benefit that she would have realized had his life been continued. [365]

Q. (By Mr. Murphy): Where did Mrs. Wal-drop live before he died?

A. She lived in Canutillo, Texas.

The Court: Where?

A. Canutillo, Texas.

Q. (By Mr. Murphy): Where did she live after he died?

Mr. Koch: I don't see the materiality of where she lived after he died.

The Court: The Court will overrule that objection.

A. Well, she lived at the same place. I mean, she continued to live there at Canutillo.

Q. (By Mr. Murphy): In what type of a place?

A. They had a small apartment in the home of a friend.

Q. Did she ever work, his wife?

A. She worked prior to the rheumatic heart.

Q. Did you know Sergeant Waldrop before he died?

A. Yes, I did.

The Court: What sort of habits of life normally did he seem to you to have or did you find that he had?

A. Well, I found him to be a very fine, up-

(Testimony of Fyrn Bloth.)

standing person. He was sort of a young, carefree boy until he and Faye married. He seemed to settle down considerably, and he took his [366] marriage very seriously.

Of course, he was just a kid, but he was a big, fine-looking——

The Court: How tall was he?

A. Oh, he was six foot or over.

The Court: What do you know of his health?

A. Oh, he was just as healthy as—real healthy, big, full of energy, full of life.

The Court: State what you know of his inclination to work or not to work, or to be provident, or the reverse of provident. State what you know of those things, if anything you do know.

A. Well, from his conversation I think he took his Army——

Mr. Koch: I object, your Honor, to——

The Court: It is more or less of what you observed of the way he lived and his reactions to his surroundings, I think.

A. Well, I think he took his service in the Army seriously. He felt an obligation toward it, and he definitely wanted promotions—well, I just thought he was a fine person.

The Court: Where was he reared?

A. In Jasper, Alabama. [367]

The Court: Was he married to your sister while stationed in the military service at Fort Bliss?

A. Fort Bliss, yes, sir.

The Court: Near El Paso?

(Testimony of Fyrn Bloth.)

A. Yes, sir.

The Court: You may inquire.

The Witness: I have a picture of Faye and John if you'd be interested in seeing it.

Mr. Murphy: Yes, your Honor, I was just ready to ask that this be identified.

The Court: Let it be marked for identification.

The Clerk: It will be marked Plaintiffs' Exhibit Number 20.

(A photograph was marked Plaintiffs' Exhibit Number 20 for identification.)

Q. (By Mr. Murphy): Can you identify that?

The Court: You do not have much information after you get the answer to that.

Why don't you at this stage form the habit of asking her, "Do you recognize that picture," and then——

Q. (By Mr. Murphy): Do you recognize what you have in your hand, that picture? [368]

A. It's a picture of my sister Faye and her husband, John Waldrop.

Mr. Murphy: Plaintiff offers Exhibit Number 20 in evidence, if the Court please.

Mr. Koch: I object to it, your Honor.

The Court: The objection is overruled.

Mr. Koch: It hasn't been identified at all, your Honor, except as to who the people are.

The Court: The objection is overruled. It is admitted as bearing upon the married life of the decedent husband and wife, the decedent husband

(Testimony of Fyrn Bloth.)

being the decedent whose estate is one of the parties plaintiff in this action.

(Plaintiffs' Exhibit Number 20 for identification was admitted in evidence.)

Q. (By Mr. Murphy): Do you know when that picture was taken?

A. It was taken shortly after they were married.

Q. Did Mrs. Waldrop ever work, or do you know if she ever worked?

A. Yes, she did. She worked prior to the last attack of rheumatic fever, which damaged her heart permanently.

Q. Do you know if she worked while they were married?

A. No, she never worked while they were married. [369]

The Court: What type of occupation did she follow?

A. She was a clerk with the Standard Oil Company in El Paso, Texas.

Mr. Koch: I can't hear, your Honor.

The Court: Read the answer, Mr. Reporter.

(The reporter read back the last answer.)

Q. (By Mr. Murphy): Do you know whether his wife relied upon Sergeant Waldrop entirely for her support? A. She did.

Mr. Koch: I object to the form of the question, your Honor.

The Court: It is objectionable, but I believe we will just—it is a matter of form. The objection is over—although it is objectionable, the Court feels

(Testimony of Fyrn Bloth.)

it is more trouble to rephrase it in another form than the way it is, so the objection will be overruled.

Q. (By Mr. Murphy): Do you know if Sergeant Waldrop knew that his wife was going to have a child? A. Yes, definitely.

Q. Do you know what his attitude was toward the expectant child's birth? [370]

Mr. Koch: I object to that.

The Court: It seems to me she has already commented on that in her testimony.

Mr. Murphy: Oh. If she has, your Honor, I didn't hear that.

The Court: He took that circumstance seriously, did you not previously——

A. Very, yes.

The Court: You mentioned that previously, did you not?

A. I said that he took his marriage very seriously, but he wanted a child very badly.

The Court: I understood you to——

Mr. Koch: I move that the answer be stricken, your Honor.

The Court: The answer is stricken for the reason that she has already gone into that when she said that notwithstanding the deceased wife's health, known to her husband, both the deceased wife and the deceased husband were very anxious to have a family.

That is the reason the Court sustains the objection. It has already been gone into.

(Testimony of Fyrn Bloth.)

Q. (By Mr. Murphy): Have you observed anything that would indicate special talent for Judy Ann? [371]

Mr. Koch: I object to the form of the question, your Honor.

The Court: I think I know what he means, but I wish you would change the form of the question to ask more directly, to state what, if she knows, what if any special talent Judy Ann manifests at this time.

Is that not what you mean?

Mr. Murphy: Yes, your Honor.

The Court: Strike the question suggested by the Court and you may now frame a proper question on that subject.

Q. (By Mr. Murphy): What, if any, special talent does Judy Ann have?

Mr. Koch: If she knows of her having any.

The Court: If she knows of her having any.

Q. (By Mr. Murphy): If you know of her having any.

A. Well, I think she has a definite musical talent.

The Court: Do you know of any other? If so, state it.

A. Well, I plan on giving her both music and dancing lessons.

The Court: Is that because of any aptitude [372] you think she possesses, or is it just because you want to do it whether she has the aptitude or not?

(Testimony of Fyrr Bloth.)

A. I think she has the aptitude. I'd like to see if I could develop it.

The Court: You may proceed.

Q. (By Mr. Murphy): Do you have any opinion as to whether or not she has college aptitude?

Mr. Koch: I object to the question, your Honor. The opinion of this witness isn't competent with this type of question. She's not an expert in the field, and hasn't been so qualified.

The Court: I think that objection should be sustained. It is sustained.

Q. (By Mr. Murphy): Do you intend to send her to college when she reaches the proper age?

A. Definitely.

Mr. Koch: I object to that, too, your Honor. There's no testimony that's in the record except that this lady is making a home for the child now.

The Court: The objection is sustained. I can imagine some proper forms of question that could be asked about the child's qualifications, if any, as manifested at this time for a possible future [373] college career or something like that.

I wish to have a recess.

(Short recess.)

The Court: Will the witness please resume the stand?

(Fyrr Bloth resumed the stand.)

The Court: You may resume the interrogation. Be as brief as possible, Mr. Murphy.

Mr. Murphy: Thank you, your Honor.

(Testimony of Fyrr Bloth.)

The Court: I think you have fairly well covered the ground.

Mr. Murphy: Thank you, your Honor.

Direct Examination—(Continued)

Q. (By Mr. Murphy): Have you observed Judy playing with other children at any time?

A. Yes, sir.

Q. Have you observed her with the other children at kindergarten? A. Yes, I have.

Q. Do you have an opinion as to her mental abilities compared with the other children of her age group?

Mr. Koch: I object, your Honor, to—— [374]

The Court: The objection is overruled. It has some bearing on whether or not she is likely to take schooling.

A. I believe Judy is above average mentally.

Q. (By Mr. Murphy): Do you have the complete care of Judy now? A. I do now, yes, sir.

Q. Do you intend to keep her with you?

A. I certainly do.

Q. Until she reaches 21, or marries, or some other time, or any time?

A. I intend to keep her just as if she were one of my own. She is my own.

Q. When she becomes of age, and when she does will you permit her to go to college?

A. I intend to see that she goes to college.

Q. Do you know the amount of the medical expenses incurred for Judy's birth?

(Testimony of Fyrn Bloth.)

A. It was around \$900.00 at that hospital for Judy's birth, between nine and a thousand dollars.

Q. Were there others?

A. Yes. We took her to another hospital. She came home and then we took her back to another hospital.

Q. Do you know whether or not, if any, there were additional expenses at another hospital? [375]

A. She had a seven hundred hospital bill at the second hospital.

The Court: What was the name of it?

A. Hotel Dieu in El Paso was the second hospital, and Judy Ann was born in Southwestern General.

The Court: Where is that?

A. In El Paso. They are both in El Paso.

The Court: Hotel—what do you mean by that? Was she at a hotel, or is that the name of the hospital?

A. That's the name of the hospital. It's a Catholic hospital in El Paso.

Mr. Murphy: No further questions, your Honor.

The Court: You may inquire.

Cross Examination

Q. (By Mr. Koch): Mrs. Bloth, from the time that Judith Ann was born, did she live with her mother until her mother passed away?

A. Yes, she did.

Q. Where did her mother live? [376]

A. Canutillo, Texas.

(Testimony of Fyrn Bloth.)

Q. Is that some distance from Alamogordo, New Mexico?

A. That is about—well, it's twelve miles from El Paso, and Alamogordo is ninety miles from El Paso.

Q. It's some hundred-odd miles away?

A. Yes.

Q. It's ninety miles from Canutillo to El Paso?

A. No, it's ninety miles from Alamogordo to El Paso, and Canutillo is between El Paso and Alamogordo. It's twelve miles past—

Q. So it's seventy-eight miles, roughly, from Alamogordo? A. Yes.

Q. Did Mrs. Waldrop live in an apartment in Canutillo?

A. She lived in a small apartment in the home of a friend there in Canutillo. She and my mother and Judy.

Q. The three of them lived together there?

A. Yes.

Q. After Mrs. Waldrop passed away, how long did the child remain there with her grandmother?

A. They didn't remain there. They moved to Alamogordo with us immediately. We took them right home with us.

Q. Now, you mentioned that for two years—in other words, that brings us one year up to the end of March, 1953. [377]

Now, did I understand you to testify that for two years the child lived with the grandparents?

A. She lived there with us in our home for a

(Testimony of Fyrn Bloth.)

year. My mother and my dad and Judy lived there with us, and then we bought another home and left them in our old home.

Q. The grandparents—the whole family was together from 1953 to early 1954?

A. That's right.

Q. Then you and your husband and your children moved out, leaving the grandparents and Judy in the house you formerly occupied for a two-year period; is that correct?

A. Two blocks from the house we bought.

Q. That was from 1954 to 1956?

A. That's right.

Q. How long has Judy been with you in 1956? When did she make her home with you again?

A. We sold the first home and built on to our present home and brought them over in October of '56.

Q. So they've been with you since last October?

A. In the present home, yes.

Q. Now, are your estimates on the cost of maintaining Judy based upon the cost of maintaining your five-year [378] old child or on the cost of maintaining Judy since she's been with you since last October?

A. Well, they are on—we maintained my folks and Judy in the other home.

Q. You paid the costs of maintaining that family? A. That's right.

Q. How much did you pay to your parents for

(Testimony of Fyrn Bloth.)

the cost of their maintenance and the child's maintenance?

A. Well, I didn't pay them anything. I just paid the bills.

Q. Well, how much did the bills amount to each month on the average?

A. Well, do you want the utility bills, the rent, and everything?

Q. I want the combined total.

A. Yes. Well, we paid \$63.00 a month payment on the house.

Q. Just a moment. I want to make a note of this. Sixty-three dollars for what?

A. Payment on the house.

Q. Yes.

A. And our utility bills usually ran around \$40.00 because we had—electricity is very high in Alamogordo.

Q. Yes. [379]

A. And then—I don't know, I didn't keep any record of the food or anything, but I'd say it averaged about between twenty-five and thirty dollars a week.

Q. That would be another \$130.00 a month, roughly?

A. Well, one hundred twenty, one hundred thirty dollars a month. And we had taxes.

Q. How much were they?

A. Our taxes were, oh, I'd say about \$60.00 a year, property taxes, county taxes.

Q. Yes.

(Testimony of Fyryn Bloth.)

A. We had sewer assessments, we had paving assessments.

Q. How much were those a year?

A. Well, I'll have to—we paid them quarterly, and I think the paving assessment was about \$60 per quarter; the sewer was much less, it was about \$14 a quarter, I believe.

Q. Were there any other expenses?

A. Well, you have the usual maintenance expenses, improvement expenses.

Q. What do you mean, improvement?

A. Well, we enclosed the entire place by fence so the children could play.

Q. Do you consider that one of the costs of—regular monthly costs?

A. You asked me the costs of the—— [380]

Q. Well, how much was the fence?

A. Well, the fence cost between a hundred and two hundred dollars. My husband did the work.

The Court: What is his usual occupation?

A. He's Sales Manager for the Coca Cola Company in Alamogordo.

Mr. Koch: I couldn't hear the answer.

The Court: Sales Manager for the Coca Cola Company in Alamogordo.

Is he a native New Mexican, or——

A. No, sir; he was born in Delaware.

Q. (By Mr. Koch): Will you continue with any other expenses that you can recall?

A. Well, he put in walks, filled in the yard and

(Testimony of Fyrn Bloth.)

put in walks, kept the house painted. We laid down flooring, and——

Q. Did that have any direct bearing on the cost of maintaining Judy, or was that a matter of maintaining the property?

A. Well, it was providing her a home and a proper home, we thought.

Q. How about clothing?

A. Well, I couldn't itemize it or anything. I have accounts with department stores in El Paso, and I [381] just buy the family needs down there. I never broke it down or itemized it.

Q. Well, my figures bring us up to somewhere in the neighborhood of \$280 per month; and I don't know whether you have included—that doesn't include anything for the child's clothing.

Did she have kindergarten or nursery school care at that time?

A. No, not at that time.

Q. Would it be appropriate in your opinion to divide this figure by four to determine—or, by the number of people that were living in that house at that time to determine the cost for each one?

A. No, I don't think so, because I think children cost more than older people. I think they eat more; I think they require more.

Q. Judy, you think, ate more than the grandparents? A. I do, yes.

Q. It cost more to maintain her?

A. I do.

Q. Well, I note here that of these items, many

(Testimony of Fyrn Bloth.)

of them, in fact, all except the food, relate to the house payments, utility payments, tax payments, assessments for sewers and paving, fence and other walks and improvements to the house. [382]

Now, of those items the only one that would not apply equally to Judy, as I see it, from your testimony, would be the food. Is that correct?

A. Well, the idea is that my folks probably wouldn't even have lived there if it hadn't been for Judy. I mean, we did that specifically and solely to provide Judy a home and not——

Q. So you think a larger percentage allotment should be for Judy, because otherwise these expenses wouldn't have been incurred; is that what you mean?

A. It wasn't necessary to maintain a three-bedroom home for my parents.

Q. Well, was it necessary to maintain a three-bedroom home for this child?

A. For my parents and the child, it was.

Q. Do your parents have any other income except that which you and your husband provide them?

A. They have a very small income, I'd say about \$400 apiece each year.

Q. \$800.00 a year was their combined income?

A. That's right.

Q. Was that from Social Security or pension income, do you know?

A. No, that was from a little bit of property [383] they have out in Blythe, California.

(Testimony of Fyrn Bloth.)

Q. Now, will you set forth the same expenses since October, 1956, incurred in the home that you and your husband and children and Judy occupy?

A. Well, we added on to our home to provide room for my parents and for Judy, and——

Q. Well, for this purpose I would appreciate it if you would simply list the living expenses. I include in that payments made on the house as a rental or in purchasing the house, but not capital improvements for building on rooms, and that sort of thing.

A. Well, we built on for the purpose of accommodating them.

Q. I understand that, but I am asking you to exclude that expenditure; simply the monthly payments made on the purchase of that home, and not in payment for the improvement of increasing the size of the house.

A. Do you want the expenses like I listed before?

Q. Yes; food, utilities, clothing, medical care, and that sort of thing.

A. I'd say our grocery bill runs around \$50 a week now. Our utilities, the minimum is \$75 a month. Do you want the house payment?

Q. Yes; how much is that?

A. \$110.98 a month. [384]

Q. Yes.

A. I've forgotten what I listed before. It's kind of a hard thing to do, sit here and——

Q. Clothing, medical expenses, dental care——

(Testimony of Fyrn Bloth.)

A. Well, the medical expenses, do you want for the whole family?

Q. Yes.

A. Oh, they run around \$25 a month, I'd say, and the clothing I would say about \$60 a month. What else?

Q. How about the cost of your daughters that are in school, and so on? A. Well,—

Q. Do they attend a private school?

A. No, they go to public school.

Q. Are the public schools free?

A. Well, I don't know whether you'd call them free or not. They—

Q. Do you pay a tuition to send the children there?

A. You don't pay a tuition, no. You pay for your books and your supplies, and so on and so forth.

The Court: Is it a school maintained by taxpayers' money or in some other way?

A. It is a taxpayers'.

The Court: It is not a private school?

A. No. [385]

The Court: Or a parochial school?

A. No, it's a public school.

Q. (By Mr. Koch): Is there an item for medical expense that your family incurs?

A. I don't understand what you mean?

Q. I'm asking you if you or the other members living in your household incur any medical expenses per month or per year?

(Testimony of Fyrn Bloth.)

A. Oh, just like any family, we incur medical expenses, certainly.

Q. I'm trying to estimate them.

A. Well, I don't know how you would estimate something like that. I told you about \$25 a month would be what I consider a conservative estimate.

Q. For medical and dental?

A. Not necessarily dental; medical.

Q. How about dental?

A. Well, I have dental expenses. My oldest daughter has had quite a bit of trouble with her teeth, and I have dental appointments waiting when I get back.

Q. Well, I have added up the expenses here, and they come to \$496 per month, and I'm just trying to find out if that's a reasonable figure, or if there are items that should be added in that I have not added in. [386]

A. Well, you have listed the essentials, of course, but then you can't just go by essentials. I have a daughter in high school, and she belongs to Rainbow, and she's a cheer leader, and she belongs to church organizations, and she's a pretty expensive item right there.

Q. Well, how much do Rainbow and church expenses and other activities of your daughter come to?

A. Well, I've never sat down and added them up. I couldn't——

Q. Well, would it be, say, a matter of ten or fifteen dollars a month?

(Testimony of Fyrn Bloth.)

A. Well, I wouldn't say that, not when you figure your formals, and she averages about three formals a winter, I would say, and maybe——

Q. How old is this daughter?

A. She'll be sixteen in July. She takes music. She has piano recitals and so on and so forth.

Q. What do the music lessons cost?

A. They cost two dollars a lesson, and she has two lessons a week.

The Court: How much a lesson, did you say?

A. Two dollars a lesson.

Q. (By Mr. Koch): Three formals a year [387] for a fifteen-year-old daughter?

A. At least that.

Q. Maybe more. Now, how old is your younger daughter?

A. She will be five in June.

Q. Does she take any music lessons or dancing lessons?

A. Not yet. They start them at six.

Q. Now, is she cared for at the same kindergarten that Judith Ann goes to?

A. When my mother isn't able to care for her, she is.

Q. Now, how much of the time since October of 1956, when the child and the grandparents came to live with you, has Judith Ann and your younger daughter attended kindergarten?

A. How many times?

Q. How much of the time, how much of the period from October of 1956 when Judith Ann began to live with you again?

(Testimony of Fyrn Bloth.)

A. Oh, they've been there between three and four months I'd say.

Q. Three to four months?

A. No, let me see: October—well, my mother just had major surgery, and she hasn't been able to care for them very much since she's been over there. That's one reason we moved them over. My dad, he is ill, and my mother is ill. [388]

Q. Neither of them work? A. No.

Q. So it's a question of when they feel strong enough to have the children around during the day time? A. That's right, yes.

Q. Now, what is the nature of your employment, Mrs. Bloth?

A. I'm secretary at Frank P. Llewellyn, Incorporated, in Alamogordo, New Mexico.

Q. What is your monthly income?

A. I make \$98.00 a week.

Q. Do they withhold taxes from your check?

A. Yes.

Q. What is your net check?

A. \$82.59 a week.

Q. And what is your husband's income?

A. It varies according to commission sales.

Q. Well,——

A. His base pay, I believe, is \$110 a week.

Q. Well, what was his income for 1956?

A. It was something close to \$7,000.

Q. What is Judith Ann's income, if any?

Mr. Riley: I object to that. I don't think Judith

(Testimony of Fyryn Bloth.)

Ann's income, if any, has anything to do with the measure of damages, and it's entirely [389] irrelevant.

We are pretty well briefed on that question, and I think it cannot be used to diminish the benefits accruing to her, or that would have accrued to her from her father in any way, and that such testimony should be excluded from the record.

Mr. Koch: Your Honor, as I understood Mr. Riley's statement at the beginning, it was hoped that the examination of this witness could be concluded today.

I don't care whether it's a matter of cross-examination or whether it's considered an appropriate question on independent examination that I would conduct as counsel for the defendant.

The Court: You may call her as a defendant's witness if you wish, but the Court has to rule now, unless you withdraw the question, on whether you may propound it.

Mr. Koch: Well, I would like the Court to rule, but before doing so, I would like to bring to the Court's attention the relevancy of the question.

We are concerned here with not only the—the measure of damages is not the only issue. [390]

One of the questions here the Court expressed an interest in before the afternoon recess is the financial support and effort——

The Court: The financial loss sustained by the wife during the time of her life following the death and the financial loss to this child.

(Testimony of Fyrm Bloth.)

Mr. Koch: Yes. And therefore the Court inquired with respect to what arrangements the husband had made for his wife's support by allotment or by other allowance from his pay, and this will bear upon what those efforts of the husband were, just what estate he left for this child, and from that standpoint——

The Court: The estate is something that the death caused to exist. That is not a right which the child has to have recovery for the wrongful death.

Mr. Koch: No, it does not go to the question of the recovery for the wrongful death, but it goes to the question of the effort the husband made to provide for his family during his lifetime.

Mr. Riley: I can't see how.

The Court: Have you any case [391] controlling that point?

Mr. Koch: I do not, Your Honor.

The Court: Do you have any case controlling? You seem to have examined it.

Mr. Riley: Yes, I have, your Honor.

First of all, as to the relevancy, I can't see how Mr. Koch's statement could be true when he states that what income Judy might have would affect the husband's provisions for the family.

Now, the benefits from insurance to a survivor of a decedent are held to be inadmissible as diminishing—that is, to show a diminishing of the damages or to limit damages to be recovered in the following cases:

(Testimony of Fyrn Bloth.)

In Kress versus Sunset Motors.

The Court: What Court——

Mr. Riley: It's 123 Washington 604.

The Court: And what did that hold?

Mr. Riley: It held that the defendant could not introduce evidence of insurance benefits or pensions accruing to a survivor of a decedent for the purpose of diminishing the amount of the recovery, or diminishing the amount—to show a diminishment of the amount of loss sustained by the surviving heir. [392]

Mr. Koch: I don't offer it for that purpose, Your Honor.

I offer it to show the effort that the husband made to provide for his family during his lifetime, and therefore the amount that might be reasonably expected to have been available for this child's support had the husband not died.

I haven't inquired about insurance. I have only asked about income. Insurance itself is not income, and I am not concerned about the principle, but I am——

The Court: Wasn't it income that you seek to show dependent upon the occurring of his death?

Mr. Koch: I don't know if it was or not.

The Court: It was not payable without death, was it?

Mr. Koch: I don't know about that. I'm not concerned solely with insurance proceeds or income from it; I'm concerned with savings or other accumulations that may have existed apart from death.

(Testimony of Fyrn Bloth.)

The Court: Did you include in this question, or did you, and did you intend to include [393] in this question what he paid the child—no, because the child was not living. It has to be so because it is dependent upon his death if the child has received any provision from him.

Mr. Koch: The child was not even living, Your Honor, but——

The Court: Therefore he could no have possibly established any precedent of conduct towards the child.

Mr. Koch: No, but it might have been with respect to his wife, perhaps.

I assume that the child succeeded to whatever estate the deceased left to his wife upon her death.

The Court: It seems to me that everything in the question you seek concerns a right to the child occurred only because he died, not because he lived, and received it from him or his estate because he died by, she claims, what was wrongfully caused by the defendant.

She is entitled to the loss, the pecuniary loss of his continuing life, if that is not in any way lessened or increased by whatever provisions that he may have had for her upon his death, or any provisions that the Court may have [394] made out of any estate he may have left for the child.

Mr. Koch: I don't——

The Court: It does not affect his ability or his desire to pay, it seems to me, for the support of his child.

(Testimony of Fyrm Bloth.)

Mr. Koch: It's only for that purpose I offer it. I'm not trying to——

The Court: I do not think it can possibly have any bearing on that, and the Court rules sustaining the objection. I distinguish—well, there is no need of distinction because the facts are not here. If this effort to show this relief this child is receiving from the estate of her father had something in it, not that kind of relief, but the support that her father paid for her benefit before his death to the extent that it was paid before his death might be shown, but I do not understand that there is anything of that sort here.

Mr. Koch: I will rephrase my question, Your Honor. Maybe I can circumvent that difficulty.

Q. (By Mr. Koch): Mrs. Bloth, will you state what estate Mr. Waldrop left upon his death, exclusive of any insurance proceeds? [395]

A. Well, just his——

Mr. Riley: I am going to object to the question for the very same reason. I don't care if he had a million dollars to which this child was an heir, or if he had a hundred dollars, or if he had absolutely nothing. It would not have any bearing whatsoever upon the measure of damages as far as this child is concerned.

The measure is solely the loss of income, and the other attributes of her parental control insofar as they are compensable by money, and whether or not he had an estate or not has nothing to do with the question of damages, or, as far as I can see, because

(Testimony of Fyrn Bloth.)

of the age of the decedent, the fact that they had been married a very short period of time, I can't see how it could affect or show anything that counsel asserts that it would.

Mr. Koch: Here, Your Honor, I am not attempting to bring the fact of his death into it, but only to show what the fruits of his labor had been to the benefit of his family, how he had used the income that he made during his lifetime, or at least since his marriage, in a way that inured to the benefit of his family upon *his* [396]

The Court: Read the question now before the witness, Mr. Reporter.

(The reporter read the last question as follows: "Q. Mrs. Bloth, will you state what estate Mr. Waldrop left upon his death, exclusive of any insurance proceeds?")

The Court: That is equivalent of asking did he make any savings, did he effect any savings during his lifetime.

Is that what you mean to ask?

Mr. Koch: Yes, Your Honor.

The Court: Construed in that way, the objection to it is overruled, and you may ask her about any savings he may have made by proper frame of question. A. Well, I—

The Court: Just a minute.

The Witness: Excuse me.

The Court: Frame a question about savings.

Q. (By Mr. Koch): Mrs. Bloth, what savings did Mr. Waldrop accumulate during his lifetime?

(Testimony of Fyrr Bloth.)

A. Well, I wouldn't have any way of knowing. I mean, it was between he and my sister. I [397] wouldn't know what——

Q. Do you know of any?

A. Actually, I don't know. I mean, I didn't have anything to do with their business affairs, so I wouldn't know.

Q. Did the Army send to your sister any money representing bonds or other deposits which he made through the allotment system in the Army?

Again, I am not talking about insurance.

A. Again, I wouldn't know.

Q. Now, as I recall the evidence, your sister and Sergeant Waldrop were married in March of 1951—of 1950; is that correct? A. 1951.

Q. Of 1951? A. That's right.

Q. Shortly prior to their marriage your sister was not employed, as I understand it?

A. That's right.

Q. Ever since she had had the last rheumatic heart attack? A. That's right.

Q. In 1949? A. That's right.

Q. And how was she supported? [398]

A. By the family.

Q. How long had your sister suffered from this heart condition prior to that attack in '49?

A. Well, we didn't know that she had. She evidently had had a prior case of rheumatic fever, but we weren't aware of it. The doctor didn't diagnose it as such.

(Testimony of Fyrn Bloth.)

Q. You later found out that when she had the difficulty in 1949—was it then that you found out that she had had it for some time without it having been detected? A. That's right.

The Court: In what part of the country did she grow up as a youth, in her childhood.

A. Alamogordo.

The Court: And that's where your family lived?

A. Yes, that's right.

The Court: Is that where you got your education? A. Yes, sir.

Q. (By Mr. Koch): Will you tell me what you base the estimated increase of maintaining Judy from \$100 to \$150 a month when she enters grade school, what [399] it is predicated upon?

A. Just an estimate, the difference in clothes and the difference in the wear on clothes, their school expenses; I mean their lunches, their transportation.

Q. Don't the children take their lunches to school?

A. I don't know about other children.

Q. How far is the school from your home?

A. Oh, I'd say it's about ten, fifteen blocks.

Q. What sort of transportation is available?

A. Well, we'll have to take them. There is no transportation, I mean, no provided transportation.

Q. Are there buses or street cars or anything like that that the children take?

A. No. Alamogordo is only 15,000 population. We have no buses, no street cars.

(Testimony of Fyrn Bloth.)

Q. The children don't walk to school?

The Court: Neither buses nor street cars?

A. No, sir.

The Court: Did it ever have any public transportation system? A. Not that I know of.

The Court: Is the growth of the city of recent years or has it always been a city [400] that has enjoyed substantially a steady growth?

A. Oh, it's known as a boom town in New Mexico.

The Court: Due to what activity, if any?

A. The Holloman Air Force Base, guided missile experimentation.

The Court: Has it had more or less of its increase in population by reason of that installation?

A. Yes, sir. That is the reason for the increase.

The Court: You may inquire.

Q. (By Mr. Koch): How many people live in Alamogordo?

A. Well, they estimate between twelve and fifteen thousand right now.

The Court: In what direction from El Paso is it? A. It's north.

The Court: Directly, more or less?

A. More or less directly, yes.

The Court: You may inquire.

Q. (By Mr. Koch): In estimating that it would cost \$200 a month to maintain a child in high school, and as I understand it, you have a daughter in high school now, and referring particularly to [401] the

(Testimony of Fyrn Bloth.)

household expenses that you presently incur, will you explain to me, except for the school activities such as Rainbow Girls and formal clothes, what that increase is based upon?

A. Well, you have to have more when you go to high school. There's——

Q. I beg your pardon?

A. There are more expenses incurred in high school. You have, oh, your lab material, you have your extra books.

Q. How much is the lab material?

A. I don't have any figures with me. As I say, all of mine are estimates.

Q. But you've estimated \$50 a month, and I'm sure that the lab material might be three or four dollars in a semester; so it's hard for me to understand how this large differential can be justified, and I want you to explain it to the Court.

A. Well, I'll do my very best.

As I say, my daughter belongs to several organizations in school. She is a cheer leader; we have costumes, we have—there's football, basketball trips.

Q. What do you mean—is she on the basketball team? A. She's a cheer leader. [402]

Q. She's a cheer leader. Where are the games played, at what distances?

A. Well, the distances are rather great in New Mexico. They play Las Cruces, which is a distance of about eighty miles; they play at Carlsbad, they play even as far up as Albuquerque, which is almost 400 miles.

(Testimony of Fyrn Bloth.)

Q. What's the cost of being a cheer leader?

A. Well, I wish you had some of them. There's costumes; they have to——

Q. You wish what? A. Pardon?

Q. You wish what?

A. I wish that you had incurred some of the expenses, then you'd know. There are costumes, the trips.

Q. How much are the costumes?

A. Well, they have two costumes, and by the time you buy the material and have them made, I'd say they cost about \$25.00 apiece.

Q. \$50.00 for cheer leader costumes?

A. That's right, because there's not only the jumper, there's the different blouses that they have to wear with them; there's special shoes they have to wear with them; there's all that sort of stuff.

Q. Does Judith Ann show aptitude for becoming a cheer leader?

A. Both my children imitate my older girl. They are both pretty good cheer leaders.

Her sweater alone, her cheer leader sweater alone cost \$35.00.

Q. Does she just wear it for cheer leading?

A. For cheer leading, and then she has a Pep Squad sweater. She's also on Pep Squad.

Q. Well, the expenses of being a cheer leader are not minor? A. They are not minor.

Q. Are there other such expenses of going to high school that you think the Court should be advised of?

(Testimony of Fyryn Bloth.)

A. Well, there's constant transportation. I mean, I probably spend—use as much gas taking her to and from places as I do going to and from work, and she belongs to the Dramatic Club; she belongs to the Future Teachers organization; and let me see, what else does she——

Q. How far is the school from your home, the high school?

A. Oh, it's about six blocks, but children don't walk anywhere any more. They ride.

Q. You drive them six blocks to school?

A. That's right. [404]

Their activities are at night, and I don't like for them to be out on the street at night.

Q. Will some of these transportation expenses be reduced by reason of the fact that the children will be going to the same school?

A. Well, the transportation will, but the other expenses will be doubled.

Q. Except for the trip to Mexico City, where the child was treated for—to Oklahoma City, excuse me—where the child was treated for the asthma and the allergy, where it was diagnosed, will you tell me what other treatment Judith Ann has had in the last year for her asthmatic condition?

A. She had two shots a week up at the Medical Center.

Q. Up to when—when did that terminate?

A. Well, I don't know the exact date. It's been several months ago.

(Testimony of Fyrn Bloth.)

Q. And since that time?

A. She doesn't have to have shots any more.

Q. Does she have any treatment now?

A. She has medication.

Q. Of what sort?

A. Well, I don't know the nature of the prescription.

Q. What is it, a pill? [405] A. Yes.

Q. How often does she take it? When she has an attack?

A. She takes it when she has a cold or when we see any inclination.

Q. When the pollens are fresh or it looks like she may be starting to cough a little?

A. Yes.

Q. My older child has it, so I'm a little more acquainted with this than cheer leading.

A. You should get acquainted with cheer leading.

Q. Does the child take franal pills?

A. Take what?

Q. Does the child take franal tablets?

A. I really couldn't tell you. I don't know what those are.

Q. Is that the only treatment Judith has now for that condition?

A. The regular treatment, yes. She's very susceptible to colds. She has numerous colds, and as I said, I took her to the doctor Monday before we came up here, and he says she has to have a tonsillectomy.

(Testimony of Fyrn Bloth.)

Q. That's thought it will reduce the incidence of catching cold? A. We hope so. [406]

The Court: Does the doctor prescribe considerably more internal consumption of foods containing iron?

A. She has vitamins, certain kinds of vitamins, regularly, and she has to be on this diet where we avoid all of her allergies, chocolate or corn or pork or anything of that nature.

The Court: When they take cold sometimes they might be affected by low blood counts as affected by lack of iron, so they say.

A. Yes. The doctor says that in some throats more than others the strep germ is present, and my sister, Judy's mother, definitely had this tendency, and evidently Judy Ann does, too.

The Court: You may inquire.

Q. (By Mr. Koch): Mrs. Bloth, I notice from statements from Mr. Waldrop's family that Sergeant Waldrop was in the Marine Corps from 1945 to 1948. Is that correct?

A. I wouldn't know. I didn't know him then.

Q. You knew he was in the Marine Corps, did you not? A. Yes, I understood he was.

Q. Do you know what his rank was in the Marine Corps? A. No, I don't. [407]

Q. Do you know what his income was?

A. No, I don't.

Q. Do you know whether he made any allotment? A. I haven't any idea.

(Testimony of Fyrn Bloth.)

Q. Do you have any information along that line with respect to his service in the Merchant Marine from 1943 to 1945?

A. I don't know a thing about that.

Q. Now, you testified that Mr. Waldrop didn't complete high school, but isn't it a fact that he only went to the ninth grade?

A. Well, that's what I—I didn't know that until I read that interrogatory.

Q. You know it now, do you not?

A. Well, according to that. I didn't know it before.

Q. That was prepared by members of his family, was it not? A. Beg pardon?

Q. That was prepared by his father, was it not?

A. As far as I know. I don't—I mean, I didn't prepare it.

Mr. Koch: May I have the certified copy of the Service record of Sergeant Waldrop, that envelope with the blue cover?

The Court: I do not remember that. [408]

Mr. Koch: It's not in evidence, your Honor. It's like that document we had for Mr. Maynard that the Court required us to put in as——

Mr. Riley: It's attached to the pre-trial order, I believe.

Mr. Koch: No, it's not in the pre-trial order——well, maybe it is.

Mr. Riley: It's referred to in the pre-trial order and identified as an exhibit?

(Testimony of Fyrr Bloth.)

The Court: Here is the pre-trial order. Take this.

Mr. Koch: It's not in the pre-trial order, your Honor.

The Court: Let Counsel see this and see if he sees a reference to it, there.

Mr. Koch: Yes, it's referred to, but it's not attached.

The Court: The Clerk is supposed to have taken the exhibits away so that they can be more handily referred to.

Do you see it, Mr. Clerk, among those taken away from the records?

The Clerk: No, your Honor. There has been only one taken away, your Honor. [409]

Mr. Koch: It's Item 9, your Honor.

The Court: Item 9 referred to in the——

Mr. Koch: It's Paragraph 9 of Exhibit Number 10.

The Court: Exhibit 10. Do you see anything about Exhibit 10 there?

The Clerk: Yes. Certified copy of U. S. Service record.

The Court: If you have it, let him see it.

The Clerk: He has it there, your Honor.

The Court: Go down and point it out to him, please.

(Brief pause.)

The Court: We won't be able to pause any longer. Can you not refer to the information in

(Testimony of Fyrn Bloth.)

some way and speak to Counsel about it? Maybe you can——

Mr. Koch: The original is in the Court file, your Honor. No one else has any. It's the certified copy of the Service record of——

The Court: Mr. Clerk, will you give to Counsel this entire file. That is all the papers that I have. Let Counsel have the entire file. [410]

(The file was handed to Mr. Koch.)

The Court: Mr. Riley, have you any suggestions to offer? Try to assist, if you can.

Mr. Riley: I was going to suggest that it could be that Mr. Koch's co-counsel might have removed that from the file along with the other one of Mr. Maynard's, to have them copied; I don't know. He took one of them, at least, with him. That was filed with——

The Court: That may have been done inadvertently, but whatever that prospect is, it is not here, and you will have to proceed with something else. Maybe you could get the same information and accomplish the same purpose by stipulation. Have you tried it?

Mr. Riley: I'll be happy to try it.

The Court: See if you can. See if you can come to some agreement so that this witness can be accommodated.

Mr. Koch: Your Honor, if I may explain, the difficulty is that this is the certified copy of the Army Military Service record. I don't have a copy of it, and neither does Mr. Riley. They were

(Testimony of Fyrn Bloth.)

sent by the Army in two manila envelopes. [411]

One was given to Mr. Karr because he wanted to reproduce it in the form in which the Court would receive it as an exhibit.

To my knowledge, so far as I knew the other was——

The Court: It is obvious that it cannot be found now. Proceed.

Q. (By Mr. Koch): Mrs. Bloth, you testified that it was your understanding that the allotment that Sergeant Waldrop made to his wife was in the neighborhood of \$70 per month from his Army pay; is that correct?

A. I understand that, but, like I said, I don't know the financial arrangements.

Q. Well, if a certified copy of his Service record set forth the amount of the allotment, would you consider that that figure was correct, and as to the extent that it differed from your estimate, that you were incorrect?

A. Certainly. Mine is just an estimate, just a guess; like I say, I don't know the exact figures.

The Court: Have you a clear recollection of what you saw on that point, as to that allotment?

Mr. Koch: I do not have, your Honor. [412]

The Court: Proceed.

Mr. Koch: Do you?

Mr. Riley: No.

Q. (By Mr. Koch): If that Service record contained medical reports of physical examinations to which Sergeant Waldrop had been subjected——

(Testimony of Fyrn Bloth.)

Mr. Riley: I object to that because that answer must obviously be pure conjecture.

The Court: The Court is going to let a good deal of conjecture in in view of this fact. One possibility is as good as another. It may be in my pocket or your pocket or Mr. Koch's pocket, or Mr. Karr's possession, or anywhere. I do not know where it is. Wherever it is, it is in some place unintended for it at the moment, I am certain of that, and if it has been misplaced, it is through inadvertence, and I ask you to proceed.

Q. (By Mr. Koch): Would you consider that the report of the medical examinations or such medical examinations as should be set forth in Sergeant Waldrop's Service record would reasonably reflect his physical condition at the time of such examination?

A. I know nothing about any medical examination.

Q. But would you consider that the information contained in the military report of his physical examination [413] would be correct? Have you any reason to think it would be incorrect?

A. I have no reason to think it wouldn't. I don't know anything about such an examination. I know nothing about any medical.

Q. You do know that the Army conducts physical examinations and medical examinations of its troops from time to time, do you not?

A. Well, I've read that. I've never been in the

(Testimony of Fyrn Bloth.)

Army; I don't know. I don't know what difference it makes, for Heaven's sake.

The Court: For the purpose of asking questions there is no reason why you cannot use that. You cannot introduce it in evidence.

Mr. Koch: No, your Honor, but if it would be something we would wish to put in evidence, we will comply with the Court's direction of yesterday and have it put in proper form.

The Court: The Court has no objection to that if it is any reminder you wish to use while you are framing questions. Proceed.

Q. (By Mr. Koch): Reading from what is entitled, Enlistment Record, Regular Army——

The Court: Do not do that. Read it to yourself and frame your question, won't you, [414] please, unless Counsel stipulates that you may read the contents of that record into this record.

Is Mr. Riley interested to the extent, I mean, in the expediting of the proceedings, to the extent of seeing if counsel can agree upon what the fact is and let it be stated in the record?

(Mr. Riley and Mr. Koch conferred privately.)

The Court: If Counsel is convinced that such and such a statement is the fact as to an Army record, I do not see any reason why you cannot——

Mr. Riley: Of course, the Army record is certified, your Honor. If they want to prepare a proper copy of it and submit it into evidence, of course I'll have no objection.

(Testimony of Fyrn Bloth.)

The Court: I could not hear you because of the noise on the street.

Mr. Riley: I just wanted to state that the Service record of Sergeant Waldrop is here, and it's certified to be his Service record, and if Counsel wants to put the whole thing in evidence as an exhibit properly prepared in accordance with the Court rules, I couldn't object to it, and I wouldn't.

Mr. Koch: Your Honor, maybe this would be the proper way to expedite it: I would like to question this witness from this record, which is not in a form yet acceptable to the Court, but if that permission is granted, I will undertake to have a black on white prepared in full and submit it for——

The Court: You can ask her if an Army record contains such and such a statement, what her attitude is about the accuracy of it, is all I can see. That might be proper, but I do not wish to say that the record is so and so, and thereby put it into this record in this trial.

Q. (By Mr. Koch): If Mr. Waldrop's Army enlistment record shows a date of enlistment of October 15, 1948, does that correspond with your views on the subject?

A. I don't have any views because I have no knowledge, just hearsay knowledge.

Q. Would you disagree with that date? Do you think that's the wrong date?

A. Well, I don't know why I should disagree with it, because I don't know anything about it.

(Testimony of Fyrrn Bloth.)

Q. Would you accept a reference in his military record to the fact that during his prior employment for a [416] period of six months he received a salary of \$37.50 per week?

A. I know nothing about Sergeant Waldrop's wages or Service record except what I've heard.

Q. Do you know when Sergeant Waldrop received his last promotion?

A. No. I'm sorry, sir, but I really don't know about Sergeant Waldrop's Service record or anything. My knowledge of him is purely personal, and through my sister.

Q. Was he a sergeant when he got married?

A. No, I believe he was a corporal. I'm not sure. He didn't use his Army title or rank.

Q. Tell me, what is your own educational background, Mrs. Bloth?

A. I've had two years of college.

Q. And when was that?

A. Oh, a long time ago. Let me see——

Q. Well, I don't think I have to bother you with exact dates.

Have you had any education since that time, formal education?

A. Practical; practical experience.

Q. What musical instruments do you play?

A. I don't play a musical instrument. [417]

Q. Do you sing? A. No, I don't sing.

Q. Do any members of your family play a musical instrument?

(Testimony of Fyrr Bloth.)

A. Yes, sir; my daughter plays the piano and the organ, and sings.

Q. Anyone besides your daughter?

A. No one in the immediate family, no.

Q. Do any of your close friends have substantial musical experience of that type, either as teachers or as proficient students?

A. Well, I have lots of friends who are musically inclined, and my daughter's piano teacher is a close friend of mine. She's an organist, and——

Q. Well, just from your own observation upon what do you base your judgment that Judith Ann has musical talent?

Mr. Murphy: That's objected to, your Honor. She has stated that.

Mr. Koch: This is cross-examination, Counsel.

The Court: The objection is overruled.

A. Well, just from observation. She carries a tune very well for a child her age. Of course, we have—— [418]

Q. (By Mr. Koch): Do you consider that there's some relationship between carrying a tune and playing an instrument?

A. Well, I think if you can carry a tune you usually have a—well, let's say an inclination. I've known children who couldn't carry a tune in a bucket.

Q. I have heard you express your views; I am just trying to find out what special knowledge or training or familiarity you have with the subject as a basis for your view.

(Testimony of Fyrr Bloth.)

The Court: I think you ought to get through, and have in mind that this witness wishes to finish her testimony today, and the Court's time is now limited, as you can see.

I do not wish to have to limit you in your cross-examination, but I think you have pretty well covered the ground, as I think the plaintiffs' counsel did, and I believe that everybody ought to begin considering finishing with this witness.

Mr. Koch: I'll finish in just a moment or two, your Honor.

The Court: Very well. Look over your notes and see if you have not just about covered the field.

Q. (By Mr. Koch): You testified that you believe that Judith Ann has a special talent, and I just want to know on what that is based?

A. Well, whether she has a special talent or not, I intend to see and want to see that she has musical instruction, dancing, all the——

Q. You just want to give her every opportunity?

A. All the opportunities and advantages that I want for my own children I want Judy Ann to have.

Q. Do you feel that as a sort of an obligation to your sister?

A. Well, obligation to my sister and obligation to the child, because I loved my sister and I love the child.

Q. Now, you have also testified that in your

(Testimony of Fyrn Bloth.)

opinion this child has more than average mentality.

Has she had any intelligence tests or anything of that sort?

A. No, it's nothing technical. She's associated with adults the largest part of her life. If you had to cope with her, you'd find out. I think she's above average in intelligence, but I have not given her any intelligence tests or anything, but you can judge a child and tell whether they are intelligent or backward or mediocre or—— [420]

Q. In what situation do you judge her?

A. In what situation?

Q. Yes. Do you judge her in the home?

A. Why, certainly. I have no other—I judge her in all my contacts with her.

Q. Well, that's your basis, your own personal contacts? A. Yes.

Mr. Koch: I have no further questions, your Honor.

Redirect Examination

Q. (By Mr. Murphy): Mrs. Bloth——

The Court: Won't you have in mind, now, Mr. Murphy, that whenever you ask one more question it will give the other Counsel an opportunity to ask two or three more, and be sure that you have to ask something. This lady has been on the stand some time, and she has made a very intelligent and helpful witness in this matter, and I wish you would see if you cannot be satisfied with what she has said and done.

(Testimony of Fyrn Bloth.)

Mr. Murphy: I appreciate that, your Honor, and under the circumstances, I have no further questions. [421]

The Court: Is there anything further, Mr. Koch?

Mr. Koch: No, your Honor.

The Court: You may be excused from the stand, Mrs. Bloth.

The Witness: Thank you.

The Court: And the Court wishes to thank you for the trouble you took upon yourself to come this great distance to appear personally here in Court to try to assist the Court in any proper way in this matter.

The Witness: Thank you for your courtesy.

The Court: I realize that it was some trouble to you, especially in making the very long and inconvenient trip.

The Witness: Thank you for your courtesy.

(Witness excused.)

The Court: Is there anything else?

Mr. Riley: May it please the Court, I would like to ask the Court that the records now on the table before me which have been delivered here by Counsel under the statements which are now a matter of record, be held by the Clerk pending— [422] during the recess.

The Court: That will be done.

I wish you would help the Clerk move them into the proper place.

Mr. Riley: I'll be glad to.

Mr. Koch: Your Honor, I have no objection to

Mr. Riley's request with respect to all this material, but in this material which I made available for our combined use is Part 41 of the Civil Air regulations which we brought; it hasn't come into the case as yet, but it would be of considerable assistance to have this document during the interval, and I would be glad to make it available to Mr. Riley too, but it would be a good deal easier than in Court.

Mr. Riley: As to these documents here today, I have not had an opportunity to examine those, and I take it that Mr. Koch has not either, and we can agree on that, and I would agree to it.

Mr. Koch: I will take this envelope and we will share it during the recess, if that is agreeable.

Mr. Riley: Yes.

The Court: With that exception, then, you will return it when the trial is resumed? [423]

Mr. Koch: Yes, your Honor.

The Court: Do you wish to expressly excuse Mrs. Bloth from further appearing as a witness?

Mr. Riley: Yes, your Honor, I do wish that Mrs. Bloth be excused from further appearance in this case in accordance with my previous indication.

The Court: Is there any objection?

Mr. Koch: No, your Honor.

The Court: Mrs. Bloth, you are excused, and thank you very much. You may return to your home if that is your wish.

Mrs. Bloth: Thank you, sir.

The Court: Those connected with this case are

excused until April 10th, at 10:00 o'clock in the forenoon.

(Thereupon, at 4:30 o'clock, p.m., Thursday, March 28, 1957, a recess herein was taken until 10:00 o'clock, a.m., Wednesday, April 10, 1957.)

11:00 o'clock A. M.

April 9, 1957

The Court: Are parties and counsel ready to proceed with the trial of Gorter vs. Northwest Airlines and of Maynard vs. Northwest Airlines?

Mr. Riley: Plaintiffs are ready, your Honor.

Mr. Koch: The defendant is ready, your Honor.

(Discussion among Court and counsel re length of trial.)

Mr. Riley: At this time, I will move the publication of the testimony by deposition of Mr. Lee Roy Waldrop, which has been filed with the clerk and notice has been given to counsel as required by the rules of the Court.

The Court: Mr. Opsahl is temporarily withdrawn from the stand, and the plaintiffs may now proceed.

(Reading deposition.)

At line 17, page 14:

Mr. Koch: I object to the answer, your Honor, because he doesn't know.

The Court: The objection is overruled.

At line 3, page 15: [426]

Mr. Koch: I again, your Honor, object to his answer.

The Court: The objection is overruled.

At line 5, page 18:

Mr. Koch: I move to strike that answer, your Honor. He acknowledges that he didn't have direct information on the subject.

The Court: That is granted. It involves volunteer statements which are not responsive.

Reading of deposition resumed at line 10, page 18:

At line 24, page 18:

Mr. Koch: Mr. Allen poses an objection that he wasn't there, was he, and Mr. Elliott said, "No." Then Mr. Allen inquired if he had any personal knowledge of it.

The Court: I think you had better proceed with the next or some other appropriate question. The objection is sustained.

Reading of deposition resumed at line 5, page 19:

At line 10, page 19:

The Court: The objection is overruled.

At line 13, page 19:

The Court: The answer may stop at the word [427] "telephone." Do you object to the rest of it?

Mr. Koch: To "telephone" is agreeable.

The Court: The first line of the answer, to the word "telephone" is permitted. The rest will be stricken.

At line 18, page 19:

The Court: The objection is overruled.

At line 20, page 19:

Mr. Koch: I object to that answer, your Honor.

The Court: The objection is overruled.

At line 25, page 19:

Mr. Koch: That is hearsay, your Honor.

The Court: I would be inclined to think so. Do you know any reason why it wouldn't be? There is no foundation. He hasn't shown the telegram has been lost or inadvertently laid aside or anything of that sort. Its absence must be accounted for in some reasonable way.

Mr. Riley: It is true, it isn't. On the other hand, he is testifying as of his own personal knowledge of a telegram.

The Court: The objection is sustained as to the reading of the contents of a telegram.

Reading of deposition resumed at line 4, page 20:
At line 17, page 23:

Mr. Koch: I object to the answer, your Honor, at line 17, page 23. He isn't testifying from his own knowledge, and I don't know what the record he is referring to is.

Mr. Riley: I don't have anything to say, your Honor. I think it is already in the record, and I withdraw the question.

The Court: The question and answer are withdrawn and stricken.

Reading of deposition resumed at line 18, page 23:

At line 13, page 32:

Mr. Riley: I object to that question as beyond the scope of direct examination, and, further, that it brings in matters which are not admissible and are irrelevant for the reasons I stated earlier when we were examining Mrs. Bloth, that insurance and social security and these matters are not admissible

in evidence and should be kept from the record.

The Court: Have you any law you wish the Court to consider?

Mr. Riley: Yes, your Honor. I repeat the cases I cited at that time. At that time, I cited three Washington cases, *Criez vs. Sunset Motors*, 123 Wash. 604, and 73 Wash. [429] 177, that stated that life insurance or social security benefits—pardon me, your Honor. The first case, *Criez*, dealt with life insurance, stated it was not relevant to damages, that damages are not diminished by benefits accruing from insurance or pensions.

In the second case, that involved a pension fund.

The Court: What number?

Mr. Riley: 73 Wash. 177, *Heath vs. Seattle Taxi*.

The Court: Do you have the third case? You said you cited three.

Mr. Riley: I apologize, your Honor. I am only citing these two.

The Court: You may proceed.

Mr. Riley: *Heath vs. Seattle Taxi*, 73 Wash. 177, dealt with a police fund for injured policemen. The plaintiff had contributed his own money to the fund, and, as in the *Criez* case, they refused this evidence.

The Court: That is sufficient.

Mr. Koch: Your Honor, I don't understand that that makes this evidence inadmissible. It is within the scope of direct examination. He questions there about his income, about the kind of work he did, about his health, all leading. The

only relevancy of any of it was to show that he would have been able to earn and provide for his family, and here to the extent that he has earned and [430] provided for his family, and that he has done so in a way that is inuring to the benefit of the family, is a matter that is appropriately to be considered by the Court.

The Court: The Court on the cases cited sustains the objection.

Mr. Koch: These cases—I am not sure if they are wrongful death cases or whether it is——

The Court: We will proceed on the Court's ruling. If you find a later case that seems to overrule them or limit them, I will be glad to have that later.

Mr. Koch: Does your ruling——

The Court: Sustains his objection. Leave out the reading of anything relating to insurance. Proceed.

Reading of deposition resumed at line 20, page 32:

At line 2, page 33:

Mr. Riley: I will object to this question for the same reason.

The Court: Sustained. What is the attitude of counsel regarding the rest of the page, from line 10?

Mr. Koch: Your Honor, that is highly relevant for the reason that if certain kinds of claims are filed, it could be a bar to this kind of action.

Mr. Riley: I think that they are entirely irrelevant as to this estate, what anyone else made, and

I think they [431] would also be irrelevant as far as the defendant is concerned, that this man, as a member of the service, had some claim against the Government arising from his death.

The Court: That this witness had a claim?

Mr. Riley: The testimony is here that this witness had a claim. I think it is irrelevant.

The Court: The Court will overrule the objection on the ground that it relates to this witness' credibility. That is the only basis I see how it could help, because I do not know what the extent to which the decedent was supporting or providing for the support or for the welfare of the witness, his father, had to do with the value of this estate, when I suppose there is no proof or intention of offering proof that his father was one of his beneficiaries of that wrongful death claim. You do not intend to urge that, do you?

Mr. Riley: No, your Honor.

The Court: It is only for the purpose of testing credibility.

Reading of deposition resumed at line 10, page 33:

At line 23, page 34:

Mr. Riley: I object to the question.

The Court: Sustained.

Reading of deposition resumed at line 5, page 35: [432]

At line 22, page 35:

Mr. Riley: I object for the same reasons, same authorities, if the Court please.

Mr. Koch: Those are not authorities with respect

to social security, your Honor. It shows what his earnings were devoted to, and that there were benefits by reason of his service.

The Court: I am going to overrule it in this instance. However, Mr. Riley, if you have a case further in support on this particular issue, I will consider it further. I wish something expressly in point on this modern social security issue. I think all of it is a kind of compensation which comes to the person receiving it by virtue of an arrangement which the arranger had with the public authorities.

Mr. Riley: I selected the case of Heath vs. Seattle Taxi because, although it didn't get into a social security case exactly, it is a pension fund where they contributed as they do in social security. I am sure the Court will take judicial notice that the person who is covered by social security contributes to the fund in the same manner as they do insurance.

The Court: The ruling will stand, subject to being changed if I find an authoritative decision requiring it. [433]

At line 14, page 36:

Mr. Koch: I am skipping a little of this material, your Honor.

The Court: Is this a discovery deposition?

Mr. Riley: No, your Honor, it was not intended. Counsel rambled a little bit.

The Court: I think this is not proper, then. It is objected to by Mr. Elliott on page 37.

Mr. Koch: Down to line 17, page 37.

The Court: You may proceed.

Reading of deposition resumed at line 17, page 37:

At line 2, page 38:

The Court: Do you wish to read the redirect examination?

Mr. Riley: I think it has all been covered, your Honor. There are a few questions, starting at line 25, page 38.

Reading of deposition resumed at line 25, page 38.

At line 13, page 39:

Mr. Riley: I will strike the rest of the questions, your Honor.

The Court: Do you wish to read any of it?

Mr. Koch: I would like to finish the deposition [434] from there, your Honor.

Reading of deposition resumed at line 13, page 39:

At line 19, page 39:

Mr. Riley: I will object to that question for the same reason.

Mr. Koch: This has nothing to do with the child.

The Court: The objection is overruled.

Mr. Koch: That is the end of it, your Honor.

The Court: This deposition is received in evidence—do you offer it as such?

Mr. Riley: I do so offer it, your Honor.

The Court: —as a part of plaintiffs' case in chief to the extent that it was read by plaintiffs and

at plaintiffs' request, and that portion which was read at the request of defendant is received in evidence out of order as a part of defendant's case in chief with like effect as if the witness was here and testifying personally and orally from the witness stand.

This case is now recessed and the Court is recessed until 1:30 o'clock this afternoon. All are excused until then.

(Recess.)

The Court: All are present. You may proceed.

ALVIN B. OPSAHL

having been previously sworn, resumed the stand for further examination:

Direct Examination

Q. (By Mr. Riley): Mr. Opsahl, the last question I asked you prior to our recess: "Do you feel that this is a sufficient supply of emergency lighting in aircraft?" and you stated at that time "Yes". Do you recall that? A. Yes, I remember that.

Q. Is it considered to be a sufficient supply of emergency lighting equipment at this time by you and by Northwest Airlines? A. Yes.

Q. Are there no additional lights supplied now in DC-4 type aircraft?

A. They are improving the lighting system right along, but there hasn't been much of a change.

Q. Do you know where these lights were stowed in the aircraft?

(Testimony of Alvin B. Opsahl.)

A. Yes, one was stowed in the forward part of the cabin, and the other was stowed by the main passenger door.

The Court: What kind of light is that?

The Witness: Emergency lantern with either two or three flashlight batteries. The size of it is about [436] four by five. It is about an inch and a quarter deep. The lens on the lantern is close to two inches, one and a half to two inches. We don't use that type of lantern today.

The Court: One emergency lantern?

The Witness: Two emergency lanterns.

The Court: It was aboard the ship at the time of the accident?

The Witness: Yes, sir.

Q. After January 19, did you furnish the company any reports relating to Flight 324 of ship 601 of Northwest Airlines which crashed at Sandspit?

A. No, I didn't.

Q. Did you ascertain for your own information whether or not the life jackets that were installed were the same type as described in the passenger instruction literature which is identified as Plaintiffs' Exhibit 13? May the witness see Plaintiffs' Exhibit 13?

The Court: It will be shown to him. Where did you say these lanterns were stowed?

The Witness: One was stowed at the forward part of the cabin, and the second one was stowed by the main cabin door, which is near the rear part of the cabin.

(Testimony of Alvin B. Opsahl.)

Mr. Riley: Read the question, please.

(Last question read by reporter.) [437]

A. I didn't feel it was necessary, because our people don't release the airplane unless they have the proper type of life vests on the aircraft.

Q. Were you advised as to any findings of the Civil Aeronautics Board concerning the type of Mae Wests installed in the aircraft? A. No.

Q. You are the senior supervising safety inspector? A. Yes.

Q. Isn't it your business to be concerned with Civil Aeronautics Administration reports and see that the company has complied with regulations of the Civil Aeronautics Board?

A. That is right.

Q. Did you ever see any Civil Aeronautics Board report regarding the crash of Flight 324?

A. I don't believe I have.

Q. Were you ever advised that the life jackets installed in the aircraft were different than those described in the literature aboard the aircraft instructing the passengers in the use of equipment aboard the aircraft which crashed? A. No.

Q. I will pose a hypothetical question. Assuming a Northwest Airlines aircraft departed Anchorage, Alaska, for Seattle, is en route to Seattle and is over water and is flying approximately 10,000 feet and there is an engine failure: [438] as senior supervising safety inspector for the western region of Northwest Airlines, would you say that the com-

(Testimony of Alvin B. Opsahl.)

panty procedure would require that the passengers aboard the aircraft be advised of emergency——

Mr. Koch: I object, your Honor, to the question. This witness is not an expert witness.

The Court: The objection is overruled.

A. I don't feel I am qualified to answer that question. I refer that question to one of the boys that are more qualified.

Q. I will ask you to answer the question to the best of your knowledge, information and belief.

Mr. Koch: I object again, your Honor, to the posing of a technical question to this witness, who is not an expert. He testifies that he is the senior supervising safety inspector, in charge of life rafts and life gear, and the hypothetical question deals with whether, in this witness' judgment, the passengers should be notified of the existence of a three-engine operation. This is not within his knowledge or within the scope of his duties.

The Court: The objection is overruled. If he knows, he may answer.

A. I wouldn't be able to answer that question, because I don't know.

Mr. Koch: He said he didn't know. Mr. Riley is [439] pressing him for an answer, anyway.

The Court: The objection is overruled.

Q. Who would be able to answer that question in Northwest Airlines? Who is responsible for ascertaining and developing the policies of Northwest Airlines with respect to emergency procedures when an aircraft loses an engine over water on a flight?

(Testimony of Alvin B. Opsahl.)

A. The captain of the aircraft. He is the commander of the aircraft.

Q. Isn't there any established policy or records, as senior supervising safety inspector, advising what the general safety procedures would be in such a situation?

A. That information would be in the flight manuals. I am not concerned with the flight manuals.

Q. Assuming the same situation, passing to another problem: as senior supervising safety inspector, would you say that the literature on the aircraft and the ditching procedures in the aircraft and the demonstrations of jackets and life rafts in the aircraft should conform to the interior of the particular aircraft at the time?

Mr. Koch: I object to that question, your Honor. The manual provisions speak for themselves, and this witness is not——

The Court: The objection is overruled.

A. This ditching folder gives the passengers a preliminary [440] idea of what is aboard the aircraft and to—from the way I understand it, it is up to the people who are flying the aircraft, the steward and stewardess, to give the proper instruction. That is the way it is today. At that time, I don't know how it was. I have never ridden in an aircraft over the water.

Q. Do you believe that the entire responsibility is on the crew of the aircraft?

A. That is the way the management has the information published to these people.

(Testimony of Alvin B. Opsahl.)

Q. You don't feel it is your responsibility to see that the literature which is installed in the aircraft does conform to the particular configuration of the aircraft that the literature is installed in?

A. These folders, to the best of our knowledge, were for the particular aircraft, yes, for this TWA airplane.

Q. But you have examined Mr. Pitcher's report and you have compared the other folder which is installed in the aircraft and they do differ, isn't that correct?

Mr. Koch: I object to the manner of questioning. This witness is not an adverse witness, and Mr. Riley is asking leading questions and directing answers.

Mr. Riley: That is a leading question, of course. I feel I should be entitled to lead him. As a matter of fact, it was my recollection of his previous testimony—— [441]

The Court: If you think he has testified on it before, the objection is sustained.

Mr. Riley: It seems he raised an inconsistent——

The Court: Avoid repetition. The objection is sustained.

Q. Assuming the situation which was described earlier on an aircraft en route from Anchorage to Seattle, flying over water at 10,000 feet and having lost an engine, do you feel as senior supervising safety inspector for the western region of Northwest Airlines that the crew should have located and

(Testimony of Alvin B. Opsahl.)

readied the life rafts that were installed in the aircraft? A. That isn't my responsibility.

Mr. Koch: Again, I object. This is assuming facts which are not in evidence, and this witness has already testified he was in charge of inspection, not installation of these life rafts.

The Court: The objection is overruled. Would you like to have a running objection as to all these questions as to this witness' knowledge or information touching the operation of aircraft, in view of some of these matters that are coming up?

Mr. Koch: I would, your Honor.

The Court: Let the record show that, and it will not be necessary for you to interrupt. [442]

Mr. Koch: The hypothetical question is assuming facts not in evidence, and I feel that is another proper ground for objection.

The Court: The objection is overruled. There is a running objection to that effect. Read the question.

(Last question read by reporter.)

A. I have never had any training on ditching, so I wouldn't know the answer to that question.

Q. What is your particular personal opinion, in the absence of training.

Mr. Koch: I object to this question, your Honor.

The Court: If you have one.

Q. If you have one.

The Court: The objection is overruled.

A. If it is an extreme emergency, I would say yes.

(Testimony of Alvin B. Opsahl.)

Q. Should the emergency lights for the interior which you have described earlier be located and readied for use?

A. They are located. They are in a permanent location. It is up to the people aboard the aircraft to light the lights as they see fit.

Q. Do you feel that the emergency lights should have been turned on? A. I wouldn't know.

Q. In your opinion, your own feeling?

A. I don't know. I couldn't answer that question. [443]

Q. After the plane came to rest in the water, do you feel they should have been turned on?

A. The cabin was flooded with several feet of water by that time. I don't know how the people reacted in that kind of extreme emergency.

Mr. Riley: I have no further questions.

The Court: Is there anything further, realizing that he may be called and probably will be by defendant?

Mr. Koch: Your Honor, I don't intend to call him. I will not cross examine this witness at this time.

The Court: You may step down. Call the next witness.

(The witness was excused.)

Mr. Riley: Mr. Smith.

The Court: Do you call him as plaintiffs' witness?

Mr. Riley: We call him as an adverse witness, as an employee of the defendant airlines. We will

show that he was the flight controller on the night of the accident.

Mr. Koch: Your Honor, this is the first time that we have been over this point, about whether a witness such as Mr. Smith is an adverse witness. He is not the managing agent of the corporation. Mr. Riley knows he is not. He knows what the Court has already ruled with respect to Mr. Pitcher and Mr. Opsahl, and I object to the effort to call him as an adverse witness.

The Court: What is there different in this case from [444] the others?

Mr. Riley: I can't show much, as a matter of fact, your Honor. Just for the record, I would like to renew my exception to the ruling that I cannot examine him as an adverse witness.

The Court: The Court sustains the objection. You may note an exception to that ruling. The witness, if you examine, will be regarded as a witness called by the plaintiffs.

CHARLES E. SMITH

called as a witness by plaintiffs, was examined and testified as follows:

Direct Examination

Q. (By Mr. Riley): Would you state your full name? A. Charles E. Smith.

Q. Where do you reside?

A. At 15423 10th Avenue South.

Q. Are you employed by Northwest Airlines?

(Testimony of Charles E. Smith.)

A. Yes.

Q. Were you employed by the defendant Northwest Airlines on January 19, 1952?

A. Yes. [445]

Mr. Riley: Would the clerk withdraw from the pretrial order Exhibit A-5?

The Court: That will be done. In what capacity were you employed at that time?

The Witness: At that time I was employed as a flight superintendent.

Mr. Riley: Exhibit A-5 is entitled "Flight Position Log Flight 324, January 19".

Q. Are you still employed in the same capacity, Mr. Smith?

A. That is correct, but the title has been changed to that of flight dispatcher.

Q. Could you describe your duties at the time on January 19, 1952? What was your capacity then? What were your specific duties?

A. My capacity at that time was flight superintendent, which is approximately the identical position which I hold today as a flight dispatcher.

Q. Were you in communication with Flight 324 on the night of January 19, 1952, the defendant's Flight 324?

A. No, I was not.

Q. At any time did you transmit a message to Flight 324 on that night?

A. Yes, I did.

Q. Did you receive any messages from Flight 324?

A. After the accident, as I recall, the acknowledgment of [446] my message was received by me.

(Testimony of Charles E. Smith.)

Q. Was it possible for you to communicate directly with Flight 324? A. No, it was not.

Q. Why was that?

A. That is because at that time our flights were reporting to the CAA radio stations, which in turn relayed the information to us, and it was through this means of relay that we had to transmit messages back and forth.

Q. What time delay was involved in the transmission of the message to Flight 324, assuming if it were over Sitka, Alaska, and you wished to communicate with Flight 324 and it was in-bound, what time delay would be involved in relaying that message to the flight from your office in Seattle?

Mr. Koch: The question is leading. It assumes there is a delay. It is quite a long question, I am not sure if there was any more than that involved. I'm not sure I understand it.

The Court: Ask the witness a supposititious question properly conditioned on the evidence or testimony up to this time, or else find out if he has knowledge that is involved.

Mr. Riley: I will strike the question.

Q. Assuming that a Northwest Airlines aircraft on January 19, [447] 1952, was en route to Seattle from Anchorage and was abeam the west leg of the Sitka radio station and you wished to communicate some direct message to the aircraft from Seattle through the Civil Aeronautics Administration channels: how much time would be involved in transmitting the message to the ship, if you know?

(Testimony of Charles E. Smith.)

A. I would like to answer the question this way:

The Court: Can't you answer directly, and then we will see if anything else is needed.

A. I do not know, because the flight wasn't in my control area at the time.

Q. In whose control area was it?

A. It was in Anchorage control area.

Q. At what point between Anchorage and Seattle would the ship come under your control?

A. About halfway between Anchorage and Seattle, which is southwest of Annette Island.

The Court: Where was it that the flight came under your control or under your direction before the crash, if it did? State where the plane was in flight before the crash, if it was in flight before the crash, at the time of your taking over the direction of the flight.

The Witness: The flight at the time of the crash was approximately halfway between Anchorage and Seattle, and because this flight was in-bound——

The Court: That is, to Seattle?

The Witness: ——in-bound to Seattle, my actual control would be at approximately that point. However, in this event the Anchorage control and the Seattle control would overlap and each of us would give all assistance possible.

Q. Did you communicate with Anchorage flight control? A. Yes.

Q. Do you recall what steps were taken or what decisions were made between Anchorage and yourself?

(Testimony of Charles E. Smith.)

A. There were no decisions made, because in the case of engine-out operation, the pilot makes the decisions on the operation, and I give any information relative to safety in regard to weather conditions and facilities to him that he may ask for.

Q. What information, if any, did you transmit to Flight 324 after it was reported that his No. 1 engine had failed?

A. Even though the flight was——

The Court: Answer directly. That “even though” sounds as if you are making a comment that is not asked for in the question.

A. I transmitted a message to the flight to ask him his intentions.

Mr. Riley: I would like to show the witness Plaintiffs’ Exhibit 6. I will show it to counsel. I will ask it be [449] admitted in evidence at this time. It is identified and attached to the pre-trial order, the aeronautical chart.

Mr. Koch: This isn’t the one we agreed to on the pre-trial order.

Mr. Riley: This is the one we agreed to on the pre-trial order. It came out of the pre-trial order just a moment ago. Paragraph 6 of the pre-trial order states, “Exhibit 6 attached hereto is an aeronautical planning chart prepared by the United States Air Force, distributed by the United States Coast and Geodetic Survey.” I think the relevancy of the document is self-explanatory. I am particularly interested in showing to the Court the route between Anchorage and Seattle and Sandspit.

(Testimony of Charles E. Smith.)

The Court: Let the witness see it. What have you shown the witness so far as the pre-trial order is concerned? Do you wish to identify it with something already before the Court?

Mr. Riley: No, your Honor. I wish to ask him to identify on the chart——

The Court: What chart?

Mr. Riley: Plaintiffs' Exhibit 6, which was obtained from the United States Coast and Geodetic Survey, as stated in Paragraph 6.

The Court: State it in your question. The Court really isn't concerned with Paragraph 6. State in your [450] question, "Showing you such-and-such a thing, describe the thing as to what it is."

Q. Showing you what has been identified as Plaintiffs' Exhibit 6, Mr. Smith, I will ask you to refer to the chart and the route designated thereon as the Anchorage-Sandspit route and indicate at what point you as flight superintendent for this area would have assumed control of Flight 324 on January 19, 1952.

Mr. Koch: Before you answer it, I object to the question, your Honor. It refers to a document which is not in evidence, and it assumes that the aerial routes on that map were the routes flown under this military flight, which is certainly a fundamental issue in the case.

The Court: The objection is overruled.

A. I would assume control of the flight southwest of Annette.

(Testimony of Charles E. Smith.)

The Court: Is Annette shown on that chart, Plaintiffs' Exhibit 6?

The Witness: Yes.

Mr. Riley: Request the Court, if the Court please, that this witness be permitted to mark the point at which he would assume control and initial the same.

The Court: The Court directs that he is permitted to do so and to conform with the request.

Mr. Riley: May the record show that the witness has marked this point as X, with a blue pencil, the point at [451] which he assumed control of Flight 324 on that date.

The Court: At what place on the map?

Q. Would you state where you have indicated you assumed control, as nearly as you are able to describe it?

Mr. Koch: Your Honor, again we are getting into a difficult question. The witness testified that he would assume control of the flight southwest of Annette. He has never testified that he did assume control at that point.

The Court: The objection is overruled. He may perform this question, if he can.

A. From Annette in a direction southwest crossing the airway would be the point that I would assume control of the flight.

The Court: Have you pointed out on that map where that point is?

The Witness: Yes.

The Court: In what manner have you done so?

(Testimony of Charles E. Smith.)

The Witness: I marked it with a blue pencil, an X.

The Court: Near what prominent place indicated on that chart is that X marked?

The Witness: I would say approximately five minutes northwest of the north end of the Queen Charlotte Islands.

The Court: Do you mean minutes of flight?

The Witness: Yes.

Q. Approximately how many miles northwest of Sandspit would that position be? [452]

A. That would be approximately sixty miles, to the best of my knowledge, in looking at this chart. May I correct that, please? That would be approximately seventy miles.

Mr. Riley: I would like to offer this in evidence at this time, your Honor, and I wish now to refer to the Defendant's Exhibit A-5, which has been taken from the pre-trial order. I presume that will have to be marked as a plaintiffs' exhibit, or however the Court wishes to handle that.

Mr. Koch: I object to the offered exhibit, your Honor, on the ground that there is no evidence at all that establishes that the flight in question was proceeding on the airways from which these measurements were taken. As a matter of fact, I believe it was not proceeding on any such record.

The Court: The objection is overruled. You are not testifying now. The Court is ready to rule on the offer.

Mr. Koch: Shouldn't the purpose for which it is

(Testimony of Charles E. Smith.)

offered be limited so that if it is introduced for the purpose of measuring where this witness assumed control of the flight or was supposed to have done so, that is one thing, but if the other marks on that map are considered also before the Court, I renew my objection.

The Court: The objection is overruled. The Court is ready to rule upon the offer. This chart, marked as Plaintiffs' Exhibit 6, is now admitted.

(Plaintiffs' Exhibit 6 for identification received in evidence.)

Mr. Riley: To clarify any problems with respect to A-5, it is taken from the pre-trial order. Because we will refer to it extensively, I would like to offer it in evidence at this time, just to clarify any problems that might arise. It is defendant's document.

Mr. Koch: I have no objection to A-5, your Honor.

The Court: On plaintiffs' motion, Defendant's Exhibit A-5 is now admitted.

(Defendant's Exhibit A-5 for identification received in evidence.)

Q. Referring to what has been marked and admitted as Defendant's Exhibit A-5, can you identify the same?

The Court: State, if you know, what it is.

Q. If you know what it is, will you state what it is?

A. Exhibit A-5 is a copy of the reports relative to Flight 324 of the 17th.

The Court: What kind of reports?

(Testimony of Charles E. Smith.)

The Witness: Flight reports and messages relative to the flight.

Q. Will you state, if you know, why the flight is designated 324/17?

A. Because it leaves Tokyo on the 17th, and Tokyo is nearly a day ahead of us in time, so the flight departing Tokyo [454] on the 17th would also arrive in our area on the 17th.

Q. Referring to the top of page 1 of A-5 which you have before you, and the portions marked "Flt plan" there, what appears to be code or abbreviations, can you translate that code?

A. The first portion was flight plan. The first line, ZT is Port Hardy, QQ is Comox, SEA is Seattle, and CYVR is the code for Vancouver.

Mr. Riley: If the Court please, A-5 is in abbreviated code. It is standard code for Civil Aeronautics and flight plan procedures. I can read it, Mr. Smith can read it. Since there is no objection to the exhibit, I think it would expedite things if Mr. Smith could just read these things as he interprets them into the record, because they are largely in code.

The Court: Do you have copies before you?

Mr. Koch: I do, and I have no objection to this suggestion, but I would like to see this exhibit.

The Court: Let him see it for a moment. You may ask the witness to do that.

A. The first message is addressed to Airways Traffic Control, Northwest Airlines. Northwest MATS—that means we are operating the flights for

(Testimony of Charles E. Smith.)

the Military Air Transport—Northwest MATS
324 DC-4 Pfaffinger Elmendorf IFR.

Mr. Koch: What do those things all mean? [455]

The Witness: Elmendorf is the—Elmendorf is well understood. IFR means Instrument Flight Rules.

The Court: Is Elmendorf at Anchorage or Fairbanks?

The Witness: Elmendorf is at Anchorage. 10,000 feet. The next code is AL. That is a transmission error. It should be A1, which means the route Amber 1. Amber 1 to Whittier direct to Sandspit via Middleton Island. True air speed 210. Estimated time en route 6 hours and 50 minutes. 11 plus 00 means that that is how much fuel is aboard the aircraft, 11 hours fuel aboard the aircraft. The alternate is Boeing Field in Seattle. The flight departed Elmendorf at 0511 Zebra time. The ship number is NC 45342. Signature, Allen, Northwest Airlines OW. The OW is a transmission error, as far as I can determine. The time the message was filed was 190511 Zebra.

Q. Referring to the time of departure from Elmendorf as 0511 Zebra, would you explain what that means?

A. That means that is the time the flight was airborne, actually off the ground.

Q. Does Zebra time refer to Greenwich time?

A. That is correct.

The Court: Why do you use Zebra?

The Witness: We use Zebra time because of the

(Testimony of Charles E. Smith.)

fact that our flights from Tokyo to New York go into so many time zones, crews from Tokyo to Seattle go through several [456] different time zones, and in order not to confuse us, we keep all times in Zebra time, which are the same around the world. There is no different time zone when Zebra time is used.

Q. Interpolating 0511 Zebra, could you state what that would be in Pacific Standard Time?

A. The flight departed on Anchorage time.

Q. Interpolate it into Anchorage time.

A. That would be ten hours before 0511 Zebra. The time would be 1911 Anchorage time.

The Court: That does not mean anything. What time is that?

The Witness: That would be 7:11 P.M. Anchorage time, or 9:11 P.M. Pacific time.

The Court: That means Seattle time, does it not?

The Witness: That means Seattle time.

Q. And on what date was that?

The Court: Is that what you mean?

The Witness: That is correct.

Q. On what date did the flight depart Anchorage?

A. As I recall, he would depart Anchorage on the 17th.

Q. Referring to the date-time group at the conclusion of the message, 190511 Zebra.

A. He would have departed on the 18th at 7:11 P.M. Anchorage time, or on the 18th, 9:11 P.M. Seattle time. [457]

(Testimony of Charles E. Smith.)

Q. Would you read the next message?

A. The next message is almost a duplicate message of the other, only in a different form, sent to Vancouver and Seattle and Airways Traffic Control and to Tacoma or McChord Air Force Base, and it states: MATS—M stands for MATS—Northwest 324 DC-4 Pfaffinger Elmendorf 10,000 Amber 1 to Whittier direct to Middleton Island direct to Sandspit Amber 1 Blue 32 Amber 1 to Tacoma. The next code letter is evidently a duplication of the first one. The true air speed is 210 knots, and the next code letter is evidently a transmission error again. It says N/VFR. It should read, if it corresponds to the preceding one, should read IFR.

The Court: What difference does this make on whether or not the defendant was negligent, Mr. Riley?

Mr. Riley: The only thing I want to do is show the flight of the aircraft, and I want to show the position of the aircraft. I think it is well known to counsel. I wanted to point out on the chart and read position reports to get to the point where Mr. Smith assumed flight control and show the transmissions emanating from the aircraft.

(Discussion among court and counsel.)

Q. Are you familiar with the transmissions and position and track of Northwest Airlines Flight 324 from Anchorage to Sandspit on the night of January 19, 1952? [458]

A. Yes.

Q. Could you trace on the map with the pencil you have the course, approximate track of the air-

(Testimony of Charles E. Smith.)

craft from Anchorage to Sandspit? A. Yes.

Q. Would you do so?

A. I have done so in red pencil.

Mr. Riley: I would like to state to the Court that the red pencil follows exactly the designated Sandspit to Anchorage route which is shown on the chart by the Air Force, which is what I tried to do earlier.

The Court: Proceed.

Q. Are you able to place the position at which Flight 324 on the 19th of January, 1952, feathered or lost its No. 1 engine?

A. I can show the approximate location.

Q. Would you refer to A-5 which you have before you, and take the sixth message there, and indicate where the pilot first reported the loss of the No. 1 engine?

The Court: By that do you mean to ask this witness to state if he can from that information at what place the plane was when that engine was lost?

Mr. Riley: That would be the better way to phrase it.

A. I can give the—I didn't understand the question.

The Court: Redraft the question. [459]

Q. Referring to Exhibit A-5, approximately the sixth message transmitted from Flight 324 on the 19th of January, 1952, are you able to determine where the aircraft was at the time it was first reported that it had lost its No. 1 engine?

A. I can determine the approximate location.

(Testimony of Charles E. Smith.)

Q. Would you mark that position with the number 1 and your initials?

The Court: That place which you say would be approximate.

A. I have done so.

Q. Would you read the message from the aircraft which first reported the feathering or the loss of its No. 1 engine?

A. A message addressed to Northwest Airlines: No. 1 engine feathered. Proceeding Sandspit. Signed Captain NWA 324.

Q. At what time was that message transmitted?

A. It was—do you mean transmitted from the flight or to——

Q. What time was it transmitted from the flight, if you are able to judge?

A. At 190803 Zebra or nearly three hours after the flight had departed Anchorage.

The Court: Mr. Smith, by the phrase in that statement “engine missing” what do you understand that to mean?

The Witness: The message read: No. 1 engine feathered. Proceeding Sandspit. [460]

The Court: Didn't it say something about something missing?

The Witness: Yes, I believe later on.

The Court: In connection with your speaking of feathering, didn't you say something about something missing, or didn't counsel in his question?

Mr. Riley: I think I probably erred and misstated a question.

(Testimony of Charles E. Smith.)

The Court: I wish you would withdraw the question and put a proper question to him.

Q. Would you state what is meant by the report than an engine was feathered?

A. We were discussing at that time—what was missing was part of the message was missing, and I never completed decoding the message.

The Court: Is there anything on that exhibit which you are now considering in connection with this line of questions which says anything about the engine missing?

The Witness: No.

The Court: Then eliminate the “engine missing” from anything that has been asked.

Q. Would you explain what is meant by the report “No. 1 engine feathered”?

A. It means that the pilot for some precautionary reason decided to stop the engine and not use it, based on some [461] reasons that were not reported at the time.

Q. When feathering is accomplished, what, if you know, is the condition or position of the propeller on the engine involved?

A. The position of the propellers, the blades are flattened so the rotation of the engine is stopped.

Q. The engine is still intact on the aircraft?

A. That is correct.

Q. Would you read from Exhibit A-5 the last reported position report of the aircraft prior to the time it feathered the engine?

A. Northwest 324 southwest of Gustavus at 0730

(Testimony of Charles E. Smith.)

Zebra, 8,000 feet, estimated southwest of Sitka at 0757 Zebra.

Q. Would you indicate on the chart by number 2 and your initials the position of the aircraft at the time of the transmission of that message?

A. Again I would like to make reference, this is the approximate location. I have no ruler here to compute the exact location. Do you want me to initial this also?

Q. Please. Referring to Exhibit A-5 which you have before you, would you read the first message which you received or transmitted on the morning of January 19, 1952, relating to Flight 324?

A. The first message reads: Advise if landing—did you say the first message sent or received? [462]

Q. The first message sent or received by you, according to Exhibit A-5.

A. The first message I received relative to the engine feathered was the one that I read: No. 1 engine feathered. Proceeding to Sandspit. Captain, NWA 324, filed 190803 Zebra.

Q. Did you contact Elmendorf Flight Control?

A. I forwarded a message, yes.

Q. Would you read that message, please? I will refer to the first message from the bottom of page 1, signed by Smith of Seattle Flight Control. Would that be you?

A. Yes. I sent a message to Anchorage. "Message from CAA in Yakutat 190820 Zebra advised No. 1 engine feathered proceeding Sandspit, Cap-

(Testimony of Charles E. Smith.)

tain NWA 324", filed at 190803 Zebra, and my signature, Smith.

Q. At what time in Anchorage time did you transmit that message?

A. That would be at 10:03 P.M. Alaska time.

Q. Pacific Time would then be 12:03 A.M., is that correct?

A. It would be, yes, three minutes after midnight Seattle time.

Q. What is the next message that you sent or received relative to Flight 324?

A. The next message I sent stated: "Advise if landing at Sandspit or proceeding to Seattle. Seattle weather Okay."

Q. And by whom was that signed?

A. That was signed by me. [463]

Q. At what hour Anchorage time was that message transmitted?

A. At 10:40 P.M. Anchorage time.

Q. And in terms of Seattle time, what time would that be?

A. It would be 12:40, or 40 minutes past midnight.

Q. Did you receive a message from Flight 324 in response to that message?

A. I don't recall at this time receiving——

Q. Would you read the second message from the bottom of page 1 of Exhibit A-5?

A. "Northwest 324 oil cooler No. 1 engine broken. Proceeding to Sandspit."

Q. At what time was that message transmitted?

(Testimony of Charles E. Smith.)

A. That message was transmitted at 29 minutes after midnight Seattle time.

Q. Referring to Exhibit A-5, was Flight 324 advised of weather between its last reported position and Seattle on any other message other than the one you sent to him at 12:40 A.M. Seattle time?

A. I do not know, because he was in contact—

Q. Are any messages contained in A-5 weather reports which were transmitted to him?

Mr. Koch: I would like to have the witness given an opportunity to answer the last question.

The Court: Read the question.

(Last question read by reporter.) [464]

The Witness: With the CAA radio stations.

Q. Would you read the message commencing at the bottom of page 1, top of page 2, Exhibit A-5?

A. This is a message addressed to Northwest Flight 324, sent by our Seattle meteorologist at my request to give the flight a forecast of what the Sandspit weather would be, and also the Annette weather, Comox weather, Seattle, Tacoma and Portland weather upon the flight's arrival in the event that the captain chose to land at Sandspit or continue on to the Seattle area.

Q. Would you read what the weather reports were for those positions as contained in that message?

A. These are not weather reports. They are a forecast. "Terminal forecast your arrival times Sandspit 2,000 feet broken to overcast clouds, occasionally"—I can't decipher the next two letters of

(Testimony of Charles E. Smith.)

"LT," except that it might mean 1,000 occasionally 1,000 overcast—"one mile and light snow."

At the top of page 2: "Port Hardy weather, 3,000 feet, overcast, occasional light rain and light snow."

The next one is Annette weather: "1,500 feet broken clouds"—the next three letters I can't decode at this time. It appears to be a transmission error again. I will correct that, I would like to read that again. I have it decoded. Annette weather: "1,500 feet broken [465] clouds, occasionally 700 feet, sky obscured, visibility one mile with light snow showers."

Comox and Patricia Bay: "5,000 feet, broken clouds."

Seattle-Tacoma: "2,000 feet, broken clouds, 4,000 feet, overcast."

Portland: "1,200 feet, overcast."

The signature is Seattle meteorologist, and it is filed at 191249 Pacific Standard Time.

Q. According to that report, are you able to state whether or not the forecast called for any precipitation at all at Sandspit?

A. I do not know.

Mr. Koch: I think the exhibit speaks for itself.

The Court: The objection is overruled.

A. I do not know.

Q. Would you read the next position report of Northwest Airlines Flight 324? It is the second message on the top of page 2 of A-5.

A. "Northwest 324 southwest of Sitka 0804

(Testimony of Charles E. Smith.)

Zebra, 8,000, Estimating Southwest of Annette at 0859 Zebra." Signed Yakutat at 190810 Zebra.

Q. Would you read the next position report of Flight 324?

A. "Northwest 324 southwest of Annette at 0859 Zebra, 8,000 feet, estimating over Sandspit at 0928 Zebra." Signed Annette at 190903 Zebra.

Q. And what time did he make this position report, Pacific Standard time?

A. The last report?

Q. Yes.

A. That would be 1:03 A.M. Seattle time.

Q. Would you read the next report from Flight 324?

A. Addressed to Northwest Airlines: "Annette advises Northwest 324 landing Sandspit." Signed Seattle at 190943 Zebra, or 1:43 A.M. Seattle time.

Q. From the period of 1:43 A.M. Seattle time back to the time of your last transmission to Flight 324, which was 12:40 A.M., did you send any other communication to Flight 324?

A. I do not recall that I did.

Q. Did you advise the Elmendorf Flight Control or the military authorities that Flight 324 had lost an engine?

A. I advised our Anchorage office of the situation, which I believe there is a message in this exhibit stating that.

Q. Did you advise the Coast Guard or any of the Air Sea Rescue facilities that Northwest Airlines was operating with one engine out?

(Testimony of Charles E. Smith.)

A. I did not do so personally, but my assistant did under my direction.

Q. Is that message contained in this report?

A. No, it wouldn't be.

Q. Referring to Exhibit A-5, would you indicate the first [467] message which you received indicating the crash of Flight 324?

A. The first information that I had received is not contained in this log, but was phoned to me from the Vancouver Department of Transport, who at that time we had a direct phone, and who also worked our flights when they were unable to work the CAA stations.

Q. Do you recall approximately what time that message was received?

A. To the best of my knowledge—I will have to refer to the message I sent to Anchorage advising them of the time that the ship had reported crashed at Sandspit, and I would do so within a minute after receiving the call, or I would direct someone to do it.

Q. Would you refer to that message? I believe it is fifth from the bottom of page 2, Exhibit A-5.

A. This is the message I sent to Anchorage, and that is filed at 2:55 A.M. Seattle time, stating that "324 of the 17th reported crashed at Sandspit. Will advise later." Signed, Smith.

Q. Would you read the next to the last message from the bottom of page 2?

A. This message is directed to Anchorage and to Seattle Flight Control. It says: "MATS at El-

(Testimony of Charles E. Smith.)

mendorf very irate about lack of information on 324 of the 17th." The next letters, [468] 342, I believe that is a duplication or transmission error in there. It further states: "Please advise any available" and then I assume "information," which is the word is missing. Signed, Barry, Anchorage Flight Control.

Q. What time in Pacific Standard time did you receive that transmission?

A. I received that transmission—did you say Seattle or Anchorage?

Q. Seattle, please.

A. 3:50 A.M. Seattle time. Correction, that message was filed at 3:50 A.M. Seattle time, but I have no record here of what time it was received.

Q. Can you estimate the amount of delay in transmission that would have been occasioned?

A. No, I cannot.

Q. Did you transmit or exchange any additional information that is not disclosed in these transmissions with either Anchorage Flight Control or Flight 324 between the time Northwest Airlines Flight 324 reported its engine out and the time it was reported crashed other than that which you have already testified to?

A. I do not recall any other information.

Q. Were you advised as to any findings of the Civil Aeronautics Board concerning the fact that Sea and Air Rescue Facilities were not alerted until after the accident [469] because three-engine

(Testimony of Charles E. Smith.)

operations over water were considered a potential and not an actual emergency?

Mr. Koch: I object to that question. The reports of the Civil Aeronautics Board, so far as this witness is concerned, would be inadmissible, hearsay.

The Court: The objection is overruled.

The Witness: Would you state the question again?

The Court: Read the question.

(Last question read by reporter.)

A. I have read the Civil Aeronautics report, but I don't recall what it says.

Mr. Riley: I would like to show the witness what was previously marked at the pre-trial hearing by the Court as Plaintiffs' Exhibit 1, and is referred to in the pre-trial order, Paragraph 1, a copy of the accident investigation, of the Civil Aeronautics Board report. I will use this to refresh the recollection of the witness, if the Court please.

Mr. Koch: I object to the exhibit even being shown to the witness. I would like to be heard on the subject.

The Court: You may. What is the objection?

Mr. Koch: Your Honor, there is a Federal statute which expressly makes privileged and confidential the Civil Aeronautics Board report and the testimony taken by the Civil Aeronautics Board, and there is a series of [470] decisions construing the Act and preventing the use of the report in trial of lawsuits relating to accidents.

(Testimony of Charles E. Smith.)

The Court: Is it something similar to what used to be the state rule regarding an accident report in the Police Department?

Mr. Koch: No, your Honor. Well, it is similar, but this is more specific. This is an act relating strictly to the Civil Aeronautics Board.

The Court: Read the briefest possible part of the Act itself which says that.

Mr. Riley: While we are doing that, I will ask that this document which I have taken from the defendant's records be marked as the plaintiffs' next exhibit.

The Court: Is it a copy of what you previously referred to?

Mr. Riley: No, your Honor. This is a new document. I thought while counsel was looking for that, we would save time and have it marked. It comes from the documents in the possession of the court which were delivered the day of the trial.

The Court: The Court first marks at this time in connection with the present interrogation Plaintiffs' Exhibit 1 that was referred to and to which objection is now being made.

(Accident report marked Plaintiffs' Exhibit 1 for identification.) [471]

Mr. Koch: Title 49 USCA, Sec. 581, deals with the admissibility of Civil Aeronautics Board records and reports. It provides in part as follows: "No part of any report or reports of the former Air Safety Board or of the Civil Aeronautics Board relating to any accident or the investigation

(Testimony of Charles E. Smith.)

thereof shall be admitted as evidence or used in any suit or action for damages growing out of any matter mentioned in such report or reports." There have been cases construing the statute, and without exception, the Civil Aeronautics Board reports, the exact type of report which counsel is now offering, has been rejected.

Mr. Riley: I would like to be referred to some cases. There is a great deal of case law on this. I point out to the Court I am only using it to refresh the recollection of the witness at this time, and as an employee and flight superintendent for the airline.

The Court: The objection is sustained to the form of the question,——

Mr. Riley: Am I not permitted——

The Court: ——because the question does bring into this record, before this trier of the fact, what the report contains, the fact disclosed by the report.

Mr. Riley: Thank you, your Honor. I will rephrase it. The witness may be shown Plaintiffs' Exhibit 1.

The Court: That will be done. [472]

Mr. Koch: I object to the witness being shown the exhibit, because since his testimony with respect to it is not admissible, and the report is not admissible, he cannot be cross examined with respect to it. You see, your Honor, in order for this report to have any value—I mean, if it were a matter of impeaching——

The Court: The objection is sustained. I would

(Testimony of Charles E. Smith.)

like to see that statutory citation you were reading. 49 USCA 581?

Mr. Koch: Yes, your Honor.

The Court: Check what you have there, in the last half of the second paragraph: "and that no part of any report or reports of the former Air Safety Board or of the Civil Aeronautics Board relating to any accident or the investigation thereof shall be admitted as evidence or used in any suit or action for damages growing out of any matter mentioned in such report or reports." June 30, 1940, is the last time this shows an amendment. Is there any recent amendment of it? Have you checked it?

Mr. Koch: Yes, your Honor.

Mr. Riley: If your Honor please, in construing that statute, I would like to state for the record very briefly, so we can proceed, that this Act, as far as I am concerned, is one of the most unfair we run into, because ordinarily, in a crash like this, the only evidence you can possibly [473] get is material that the Civil Aeronautics Board uncovers, and to construe the Act to prohibit us even to use it to refresh the witness' recollection, an employee of the airline, in a substantial position, is very prejudicial and difficult. I am not offering it as an exhibit, I only want to refresh his recollection, and offer to show that the report—that it was a fact that search and rescue facilities were not alerted until after the accident.

The Court: "or used"—"shall not be admitted

(Testimony of Charles E. Smith.)

as evidence or used in any suit or action.” Aren’t you using it if you are trying to refresh his recollection?

Mr. Riley: Yes. I just feel that——

The Court: I believe the words are plain. I will have to have you show me under this statute that does not mean “using.”

Mr. Riley: All right, your Honor. I wish to offer Plaintiffs’ Exhibit 21 in evidence at this time and use it for a few more questions with Mr. Smith. I believe the relevancy is apparent on the face of it. It is taken from the business records of the defendant, delivered here on the first day of trial by Mr. Koch.

Mr. Koch: Your Honor, this is a letter, not an ordinary business record. The letter is signed by Mr. Cox, who is subpoenaed and in this courtroom at this time, and it would seem to me that the appropriate procedure is [474] to introduce this letter through Mr. Cox, and if so done, I would have no objection, but I object to the attempt to introduce this letter through a different witness who is not familiar with it, and in whose responsibility the subject matter of the letter does not fall, and therefore, since it is not a business record and not properly subject to admission into evidence, I object to it.

The Court: That objection is overruled. It is without prejudice to your objecting to the questions.

Q. I would like to have you refer to Page 3 of

(Testimony of Charles E. Smith.)

that letter marked Plaintiffs' Exhibit 21, Mr. Smith.

Mr. Koch: Your Honor, this has not been admitted in evidence, has it?

The Court: No. It has been marked for identification.

Mr. Riley: Pardon me, your Honor. I do offer it. I had understood your Honor to pass on the admissibility.

The Court: What is the authentication which you use to rely upon to support your offer?

Mr. Riley: The document is taken from the business records of the defendant delivered in court by counsel for defendant, and it is a letter relating to the duties of the flight superintendent in the event of an engine-out operation, which is the situation which existed on January 19, 1952. I wish to inquire further of Mr. Smith with respect to these policies as they were reported in [475] this letter from the business records of the defendant.

Mr. Koch: Your Honor, the rules are very well established on what qualifies under the business records statute for admissibility. It is records made in the regular course of business. This is a routine letter. I wouldn't call it a routine letter; it is a letter on a particular subject, not made in the regular course of business, made under very unusual circumstances, and it does not come within the exception to the hearsay rule under which business records made in the regular course of business may be admitted.

(Testimony of Charles E. Smith.)

(Further argument and discussion among counsel and Court.)

Mr. Riley: Since this was written by Mr. Cox, I can take care of it later and will pass to the next witness. I have no further questions of Mr. Smith.

Mr. Koch: That is agreeable.

Cross Examination

Q. (By Mr. Koch): Referring to Exhibit A-5, which is called the flight position log, Flight 324 of the 17th, will you explain what this air route traffic control actually is and under whose jurisdiction it falls?

A. The Airways Traffic Control is a Government agency regulating the flow of traffic. In other words, they keep [476] the different airplanes, the different airlines apart so they won't collide by assigning different altitudes and different approaches to the airport at their destination.

The Court: What agency, if you know, of the Government maintains this service?

The Witness: The Airways Traffic Control comes under the Civil Aeronautics Administration.

The Court: What is the classification of the person who is the spokesman from that authority to the plane operator, the pilot, carrying the words which command the pilot's course as to height and distance and direction?

The Witness: The man in the Airways Traffic Control is known as a traffic controller.

(Testimony of Charles E. Smith.)

The Court: Where is he located and from what point does he operate, if any?

The Witness: In this instance, Airways Traffic Control is established at Seattle and Anchorage.

The Court: Where? In what place, at what spot on the ground?

The Witness: It is at each airport.

The Court: Where was the one that was concerned with this flight, if any was concerned with this flight, spotted in Seattle with reference to airports, and in what type of structure, if any structure?

The Witness: The Airways Traffic Control at Anchorage [477] airport would assign the altitude for the flight to be——

The Court: The witness seems to the Court not to want to answer what the Court is inquiring.

Q. The Court is inquiring as to where the Airways Traffic Control is located in Seattle.

A. Airways Traffic Control is located at the airport at Seattle.

Q. What building?

A. In the Administration Building in Seattle.

Q. King County Administration Building?

A. No, the Seattle-Tacoma Airport Administration Building at the Seattle-Tacoma Airport.

Q. Does that facility serve all airlines that operate in and out of Seattle?

A. That is correct.

Q. Is there a comparable facility in Anchorage?

A. Yes.

(Testimony of Charles E. Smith.)

Q. Where is it located?

A. I do not know.

Q. Is it at the Elmendorf Airfield somewhere?

Mr. Riley: I object to the question. He said he didn't know.

The Court: I feel that under the circumstances, the further questioning by counsel is appropriate. This objection is overruled. This witness seems to the Court [478] to have an unnatural and wholly unexpected reluctance about testifying. I do not know why it is. If counsel can break through the barrier and get him to let the Court know what he would be expected to know about this, I am sure it would be of great service in the trial.

Mr. Koch: I think he misunderstood, your Honor.

Q. Can you tell us what you do know about the Airways Traffic Control office or place of business in Anchorage?

A. No, because that is not under my operational control. I can tell you about the performance of its functions in Seattle.

Q. Are there other centers between Seattle and Anchorage where this Air Traffic Control maintains facilities? A. Not to my knowledge, no.

Q. You have mentioned in your direct examination that messages were relayed from station to station. What kind of stations are they that relay such messages?

A. The traffic controller in the Airways Traffic Control will forward a message to the CAA radio

(Testimony of Charles E. Smith.)

station along the route to be transmitted to the flight.

Q. What CAA radio stations are there between Seattle and Anchorage?

A. There is Seattle, Annette Island, Yakutat, Sitka, Gustavus, Yakutat, Anchorage.

Q. Is Vancouver on a different relay or control system? [479]

A. Yes, Vancouver has an Airways Traffic Control located in Vancouver, I presume at the airport, and because our flights go through part of British Columbia, Vancouver would have certain control over those flights while they are in their area, and they use their Department of Transport of Canada, which is comparable to the CAA radio of this country.

Q. Is there a British Columbia or Department of Transport Traffic Control center at Sandspit?

A. No.

Q. Is there a radio station at Sandspit?

A. Yes.

Q. Do all aircraft of all companies operating between Anchorage and Seattle or portions of that general route use the facilities of this British Columbia and CAA radio system?

A. At the time, they all used the facilities of the CAA, and if they wanted to use the facilities of the Department of Transport, they could.

Q. Then these messages that appear on Exhibit A-5 are all messages that are transmitted through the Civil Aeronautics Administration Traffic Con-

(Testimony of Charles E. Smith.)

trol, relayed from station to station, is that correct?

A. Yes, mostly correct, except Sandspit comes under the Department of Transport of Canada, and there is a message [480] from Sandspit. However, that was relayed through the Annette station.

Q. Was there any direct communication made or possible to have been made between Seattle and the flight directly?

A. I do not know. I do not believe so, because we had to use this method of relay due to atmospheric conditions and the particular setup. It was the best that we could utilize at that time.

Q. Was that provided for by regulations of Northwest Airlines, that they would use the Civil Aeronautics Administration radio system?

A. Yes.

Q. And would your answer hold true of communications between Anchorage and the flight?

A. Yes, that would be a similar situation.

Q. Then as the plane proceeded from Anchorage to Seattle there might be log messages between stations along the route and the flight, might there not?

Mr. Riley: I object. He is leading the witness. If I can't lead him, he shouldn't be permitted to.

The Court: Sustained.

Q. Will you tell me if under ordinary circumstances there can be log messages between the flight and the CAA radio stations?

A. Would you clarify that question again?

(Testimony of Charles E. Smith.)

Mr. Koch: I will strike the question. [481]

Q. Could the flight have communicated directly with Annette when it was in the vicinity of Annette Island? A. Yes.

Q. Could the flight have communicated directly with Sandspit when it was within Sandspit radio range? A. Yes.

Q. How about between the flight and Vancouver?

A. Possibly, but inasmuch as it could contact the Sandspit station, that would be relayed to Vancouver, and they would normally contact the closest station.

Q. Under those circumstances, would such direct contacts as might take place between the flight and one of these stations then be relayed to Anchorage or to Seattle? A. Yes.

Q. Are these stations provided with directions with respect to where to transmit messages, whether a message shall go to Seattle or to Anchorage or to way points?

Mr. Riley: I object to that. I don't think he is qualified. I think it isn't the best evidence. He should ask the people who would know the CAA regulations.

The Court: If you know. The objection is overruled.

A. I do not know.

Q. I notice on Exhibit A-5, the flight position log, flight report, that there are delays between the transmission of messages and the receipt of

(Testimony of Charles E. Smith.)

those messages at the point of [482] destination. Messages between the flight and receipt in Seattle sometimes took an interval of time. Can you explain that?

A. Well, we used the Civil Aeronautics Administration radio facilities, and there is—there can be a lag in time on the messages due to the CAA radio operator being busy with other airline flights forwarding reports and the other duties he has at the station, and also the fact that the circuit might temporarily—he might have to wait his turn to relay the report.

Q. Were the delays that are apparent on Exhibit A-5—do you have it before you now?

A. Yes.

Q. How do they compare with normal transmission delays at that time?

Mr. Riley: I object. He hasn't shown that there were any delays.

Mr. Koch: He just answered it in the last question.

The Court: The objection is overruled.

A. I do not recall in this instance whether there were any delays or not in the transmission, but indicates there was no abnormal delays, because I don't recall of trying to have to go after the information when I didn't receive the answer.

Q. This is about the way it usually is? [483]

A. Yes.

Q. Mr. Smith, will you explain how a flight is—talking about the Anchorage to Seattle flight, Flight

(Testimony of Charles E. Smith.)

324 of the 17th, how was that flight released from Anchorage? A. Well, the——

Mr. Riley: If the Court please, I would like to make one statement for the record here. It seems to me counsel is going to go pretty far afield from the direct examination. I want to know whether or not counsel's examination is going to impede on the time I am going to be permitted to present my part of the case.

Mr. Koch: Your Honor, this exhibit starts with the first message from the flight, and I am only trying to make the exhibit meaningful so that the Court will appreciate——

The Court: I do not think you should use any more time in cross examination of this witness. You can call him as your witness as part of your case in chief.

Mr. Koch: Your Honor, would I be permitted to complete this one question?

The Court: You may.

A. In the operation of an Anchorage-Seattle flight, the flight superintendent in Anchorage would check the weather over the route, and I in Seattle would check the weather over my part of the route, and if I were convinced the flight [484] could be flown in safety, I would send him what is known as a release. In other words, a release means that I will accept the flight in my area, that the weather and facilities are O.K. for the flight in my area. When the Anchorage flight superintendent receives that and he agrees that the conditions are suitable

(Testimony of Charles E. Smith.)

in his area, he discusses the operation with the captain and the captain accepts the release, based on his thinking and analysis of the weather also, which, in short, means that three people are involved in the release of the flight: the flight dispatcher at Anchorage, the Seattle flight dispatcher, and the captain of the flight.

Q. Did that take place in this particular flight when it departed from Anchorage?

A. That is the normal procedure, yes.

Q. Was it carried out in this case?

A. Yes, I sent a release to Anchorage, and the flight being released would indicate that conditions were suitable in the Anchorage area.

Mr. Koch: Your Honor, my own thought on the matter is that if I were to complete what I think now would be a very short cross examination, that it wouldn't be necessary to recall this witness, but if the Court—

The Court: Please make it as brief as possible, and stay closely within the limits of the direct.

Q. Referring to Exhibit A-5 again, Mr. Smith, and the first message received in Seattle advising that the No. 1 engine is feathered and that the pilot was proceeding to Sandspit—do you find that one, the fourth message from the bottom of the page—you sent the following message, did you not?

A. Yes.

Q. And you wished to be advised about landing at Sandspit?

A. Yes. I assumed that the flight was going

(Testimony of Charles E. Smith.)

to land at Sandspit. That is the normal procedure, from the interpretation of the message I had. However, I wanted to give the flight the information that if he didn't find things suitable there, that the Seattle weather was all right for him to continue on, but that was his decision to make. I was merely assisting.

Q. Did you receive a subsequent message bearing out your assumptions with respect to the pilot's intentions?

A. I received a message that the flight was estimating over Sandspit, and the time——

The Court: Couldn't you answer that yes or no?

A. Yes.

Q. Is that message third from the top on the second page? A. Yes.

Q. Did you receive a message from the flight, relayed from the flight, with reference to the cause of failure of the [486] No. 1 engine?

A. Yes, I recall that I did.

Q. Did you notice where that message is on the exhibit?

A. It is on page 1, second from the bottom.

Q. What was the cause?

A. "Northwest 324 oil cooler No. 1 engine broken proceeding to Sandspit. Signed NWA Pfaffinger."

Q. Who was Pfaffinger?

A. That was the captain of the flight.

The Court: Was he in charge of the operation

(Testimony of Charles E. Smith.)
of the plane from a position in the cockpit of the plane?

The Witness: Yes.

The Court: He was the pilot, is that right?

The Witness: Yes.

Mr. Koch: May I see Plaintiffs' Exhibit 6?

Q. Do you recall the red pencil marks you made showing the course of the flight from Anchorage to Sandspit?

A. Yes. That was a flight plane route.

Q. Pardon me?

A. That was a flight plane route in accordance with this Exhibit 5.

Q. Is that Amber 1 you refer to in identifying the first message on A-5, the flight position log—

A. A-1 means Amber 1, yes.

Q. And that red line that you marked is Amber 1? [487]

A. Part of it is, yes.

Q. Does that route have any military designation?

A. It was known at that time as a military route.

Q. Do you know whether that is what the flight plan for this flight called for?

A. Yes.

Mr. Koch: I have no further questions.

Redirect Examination

Q. (By Mr. Riley): This Amber 1 and the Sandspit route you said was also known as a military route was the ordinary course for all commer-

(Testimony of Charles E. Smith.)

cial flights between Anchorage and Seattle, isn't that right?

A. For most of them, non-stop flights, yes, sir.

Q. You stated that the three individuals, the captain of the flight, the Anchorage flight controller and yourself, determined the release of the flight. Is the anchorage flight controller also an employee of Northwest Airlines?

A. Yes, he is in the same capacity as I am. He is stationed in Anchorage.

Q. Sandspit is a facility that you would check as in your area before issuing your release for this flight to proceed, is that correct? Did I understand your testimony?

A. Yes, we would check Sandspit.

Q. Did you check Sandspit on that night? [488]

A. As I recall. It was part of my routine duties.

Q. Do you know what safety facilities were at Sandspit on January 19, 1952?

The Court: For use with reference to what kind of operation?

Q. Do you know what type of safety facilities were located at the Sandspit airfield for use of incoming flights or flights originating or departing from or landing at Sandspit?

A. I knew them, but I don't know, don't remember them now.

Q. You haven't any idea what facilities were available?

(Testimony of Charles E. Smith.)

A. I wouldn't like to commit myself when I don't know.

Q. Just to clarify one point as to the function of Air Traffic Control. Is it or isn't it fair, if you know, to say that the sole function of Air Traffic Control as it is operated by the Civil Aeronautics Administration is solely to give weather information and to receive and transmit communications and to provide safety separations for the aircraft in the air?

A. The Air Traffic Control merely controls the traffic in the area. They are the traffic policemen of the airways.

Q. In other words, all they do is provide separation as to altitude and distance between aircraft, is that correct?

A. That is correct.

Q. They don't have control over the destination of an aircraft?

A. No. [489]

Q. What priority would be given an aircraft in distress with an engine out? Would the airways be cleared for that aircraft by ATC?

Mr. Koch: If you know.

Q. If you know.

A. Not unless the captain requested.

Q. But if you or the captain requested it, the airways would be cleared for that aircraft to any destination that you or the captain selected, isn't that correct?

Mr. Koch: I object to the form of the question. He answered it in terms; perhaps, if the captain requested it. Now the question is "if you or the

(Testimony of Charles E. Smith.)

captain requested it." I think the witness is being misled by the question.

The Court: The witness is such an intelligent witness, the objection is overruled.

Mr. Riley: Read the question, please.

(Last question read by reporter.)

A. Yes, that is correct. A priority would be given to the aircraft either by my request or the captain's request.

Q. Did you request any priority? A. No.

Q. Did the captain request any?

The Court: To your knowledge.

A. I do not know.

Mr. Riley: I have no further questions. [490]

(Accident report marked Defendant's Exhibit A-18 for identification.)

(Brief discussion between counsel re A-18.)

Recross Examination

Q. (By Mr. Koch): Will you identify the exhibit which has been marked A-18? A. Yes.

Q. Will you give me the name of it and the date? What is the name of the document? Does it have a title?

A. This is an accident report of Flight 324 of the 17th.

Q. And does it bear your signature? A. Yes.

Q. Is the date of the report shown?

A. Yes.

Q. What date does it bear?

(Testimony of Charles E. Smith.)

A. January 20, 1952.

Q. Do regulations of the company and of the Civil Aeronautics Administration require that such report be submitted following an accident?

A. Yes.

Mr. Koch: I offer the report in evidence, your Honor.

Mr. Riley: I have no objection, your Honor.

The Court: Admitted.

(Defendant's Exhibit A-18 for identification received in evidence.) [491]

The Court: Is there anything else?

Mr. Koch: That is all, your Honor.

Mr. Riley: No further questions.

The Court: Step down.

(The witness was excused.)

(Brief discussion between counsel re A-18.)

Mr. Koch: Mr. Smith, were you assigned to investigate the crash of this flight?

The Witness: No.

Mr. Koch: Did you go to Sandspit?

The Witness: No.

Mr. Koch: Have you ever investigated an accident?

The Witness: No.

Mr. Koch: Is this made in your capacity as flight superintendent at the time of the accident?

The Witness: Yes.

The Court: Proceed. Call the next witness. [492]

EDWARD R. MATTHEWS

called as a witness by plaintiffs, was sworn and testified as follows:

Direct Examination

Q. (By Mr. Riley): Would you state your name for the record? A. Edward R. Matthews.

Q. Where do you reside?

A. 10847 Rustic Road.

Q. Where are you employed?

A. Northwest Airlines.

Q. How long have you been employed at Northwest Airlines?

A. Approximately nineteen years.

Q. In what capacity are you presently employed? A. Chief mechanic.

Q. For what region or area of Northwest Airlines? A. Seattle, Washington.

Q. How long have you held that position?

A. Approximately eleven years.

Q. Were you so employed and did you hold the same position in January of 1952? A. I did.

Q. In your nineteen years with Northwest Airlines, have you always been employed as a mechanic? [493]

A. In the maintenance department, yes.

Q. Are there Civil Aeronautics Regulations and other qualifications which you must meet to qualify as a mechanic for a scheduled airline?

A. There are requirements, yes, but we do have mechanics that do not have to pass these examinations.

(Testimony of Edward R. Matthews.)

Q. Are you certificated by them?

A. I am.

Q. What is your qualification or how are you licensed by the Civil Aeronautics Administration? In what capacity are you licensed by the Civil Aeronautics Administration?

A. Aircraft and engine mechanic.

Q. How long have you been so licensed?

A. One license since I was eighteen years old, and the other one since I was twenty.

Q. Are you familiar with the procedures used by Northwest for compiling engine time and aircraft time?

A. No, I am not.

Q. Have you any idea at all as to how the records are compiled and kept with relation to the particular aircraft?

A. A rough—I am not fully informed as to the full details of how they are. I have a rough idea how they are maintained.

Q. Would you describe in general how the records are kept?

A. The records are maintained in St. Paul. All we do is [494] forward the information to them.

Q. What information do you forward to them?

A. All records of maintenance is forwarded. Practically every job we accomplish, there has to be a record made of it, and those records are all forwarded. Everything on the aircraft that we maintain or do is sent to St. Paul for records.

Q. The records that you compile, or they are compiled by the pilot?

(Testimony of Edward R. Matthews.)

A. The records are compiled by the pilot as a logbook on the airplane. All our maintenance records are forwarded, and the logsheets the pilots compile are also forwarded.

(Maintenance records marked Plaintiffs' Exhibit 22 for identification.)

Mr. Riley: I cite to the Court that those are withdrawn from counsel table, from the records that have been previously produced here.

The Court: You mean counsel table here in the courtroom, is that what you mean?

Mr. Riley: Yes, Your Honor.

Q. Do you know that records are kept regularly by the airline of each engine on each aircraft?

A. Yes, to my knowledge they are.

The Court: What kind of records, maintenance records?

The Witness: Yes, sir. Time records on [495] all aircraft engines, propellers or component units.

The Court: What do you mean by "time"?

The Witness: The amount of time the units are run.

The Court: In other words, the number of hours or substantial fractions thereof an engine has been operating in flight?

The Witness: That is right.

The Court: Is included in the records you mentioned?

The Witness: That is right.

(Pilot's logs, Ship #601, marked Plaintiffs' Exhibit 23 for identification.)

(Testimony of Edward R. Matthews.)

Q. Mr. Matthews, would you refer to the file that you have there before you, and if you can, tell us what the records would indicate, what the file would indicate——

Mr. Koch: I think there should be some identification first. Find out whether these records were made in Seattle or whether this witness knows anything about them.

Mr. Riley: He just stated records are kept by the company.

The Court: Did he say these are among those, that this exhibit is among those so kept?

Mr. Riley: He has not as yet.

The Court: I think it is proper to give him an opportunity to identify it more particularly.

Q. Referring to Plaintiffs' Exhibit 21, the file you have [496] before you, do you know what those records are?

A. They are records of spark plugs and they are engine maintenance records.

Q. Do the records and the documents before you have reference to specific engine numbers and to specific aircraft? A. Yes, they do.

Q. To what aircraft do those records refer?

A. This record of this file is ship 601.

Q. And you are referring to what has been marked Plaintiffs' Exhibit 21, is that correct?

A. This is Plaintiffs' Exhibit 22.

Q. Would you refer to the last——

Mr. Riley: I believe that is sufficiently identified, Your Honor. I will ask Plaintiffs' Exhibit 22 be

(Testimony of Edward R. Matthews.)

admitted in evidence as part of Plaintiffs' case.

Mr. Koch: I object, Your Honor. This witness did not make the records. They were made in St. Paul. He doesn't know anything about these records any more than you or I do.

The Court: The objection is overruled. Plaintiffs' Exhibit 22 is admitted.

(Plaintiffs' Exhibit 22 for identification received in evidence.)

The Court: You have not made any offer of 23?

Mr. Riley: Not yet, Your Honor. [497]

Q. Would you refer to the last card contained in the file before you, Plaintiffs' Exhibit 22, and I will ask you to indicate the serial number, if you are able to tell from those records, of the No. 1 engine on ship 601, according to the records before you?

A. It states here the No. 1 engine on this card is 701355.

Q. Would you state, if you are able, the total amount of time since overhaul on the No. 1 engine, is indicated by the record before you?

A. I am not too familiar with this, but there is TSO's on here. I can just read what I see.

The Court: Don't read what you see. You are not asked to do that.

Does the record indicate the time since overhaul on the No. 1 engine of the aircraft as of January 19, 1952?

A. I'm really not sure just how to interpret

(Testimony of Edward R. Matthews.)

some of these things on here. There's spark plug information, engine data, propeller data, all thrown together. I'm not sure of this form, to be sure of my statement.

Q. Do you know what the total permissible time since overhaul is on engines installed in DC-4's in January of 1952?

A. No, I would hesitate to say without checking the records.

Q. You were aware and informed of the fact after the crash of Flight 324 that the No. 1 engine had been operated in excess of the maximum permissible time since overhaul, [498] were you not?

Mr. Koch: I object to the question as leading and suggestive.

The Court: "Are you"? Is that the form of the question?

Mr. Riley: I asked, "were you".

The Court: That objection is overruled.

A. No, I was never informed that it was.

Q. Do you recall a deposition taken at the Northwest Airlines office at the Seattle-Tacoma Airport, you and Mr. Peterson, Mr. Opsahl, myself, Mr. Payne Karr were present? A. Right.

Q. Did you or did you not state at that time that you were informed that the engine had been operated in excess of the maximum time since overhaul?

A. I did, but I misinterpreted your question as knowing soon after the accident. I was unaware of it

(Testimony of Edward R. Matthews.)

until several years afterwards, that the engine was overtime.

Q. But you did become subsequently apprised of the fact that the engine had been operated beyond the maximum time permitted? A. Yes.

Q. Do you know approximately how much the engine had been operated in excess of Civil Aeronautics Regulations on the subject? [499]

Mr. Koch: I think there are rules against impeaching your own witness.

The Court: The objection is overruled as applied to this question. Answer yes or no.

A. How many hours?

Q. Yes. A. Approximately.

Q. Would you state approximately how much it was?

A. From my understanding, it was in the neighborhood of 100 to 150 hours.

Q. Referring once again to the last page of Plaintiffs' Exhibit 22, did the last entry in there indicate the last recorded time and the total time since overhaul, according to the latest records of defendant Airlines, insofar as you are able to tell?

A. So far as I am able to tell, I would assume that was the last entry.

Mr. Riley: I am not certain of the procedure in this matter. I would like to direct the Court's attention specifically to this card and the entry, and since this document is now in evidence, and the nota-

(Testimony of Edward R. Matthews.)

tions made on the card, the statement is: Crashed at Sandpit, Queen Charlotte Island, while attempting emergency landing with No. 1 engine feathered due to broken oil cooler line. My copy is a little obscured, and it shows time on [500] the No. 1 engine as being 1725 hours and 16 minutes. I would like to direct the Court's attention to that exhibit and that particular portion of the exhibit.

The Court: What column, what line?

Mr. Riley: The last lines of numerals, approximately the middle of the page.

The Court: There are three lines below that, with a written statement.

Mr. Riley: That was a portion of what I was directing Your Honor's attention to, and secondly, the total time on the No. 1 engine, under the letters "TSO" in the column designated No. 1 engine.

The Court: No. 1 engine, is that the one?

Mr. Riley: No. 1 engine, 701355.

The Court: Does that "NR 1" mean No. 1?

The Witness: Yes, sir.

Q. Does that No. 701355 indicate the serial number of the engine installed in the No. 1 position?

A. Yes.

Q. Did the last entry there on the bottom of the column indicate the last entry showing the total time since overhaul?

A. I would assume so from the—the Record Division handled these cards. I would assume so.

Q. What does the abbreviation "TSO" mean?

(Testimony of Edward R. Matthews.)

A. Time since overhaul.

Q. Then would you state the significance of the last figure on the bottom of the column under No. 1 engine?

A. That should be the time since overhaul on that engine as recorded on this card.

Q. According to the last entry, is that correct?

A. Yes, sir.

The Court: Showing operation time?

The Witness: Yes, sir.

The Court: Since overhaul? How much does it show since overhaul operation time is?

The Witness: 1725 hours and 16 minutes.

Q. What does the term at the top of the column mean which states "Max 1500", if you know?

A. I would assume that that was the maximum amount of hours at this time card was being used.

Q. What do you mean, maximum? The maximum permitted?

A. The maximum allowable hours before overhaul.

Q. When you say "maximum allowable before overhaul", allowable by whom?

A. Civil Aeronautics Administration.

Q. Does the Civil Aeronautics Administration promulgate regulations which fix the maximum permissible time?

A. That is right. [502]

(Photographs marked Plaintiffs' Exhibits 24 and 25 for identification.)

Q. Showing you what has been marked as Plain-

(Testimony of Edward R. Matthews.)

tiffs' Exhibit 24 for identification, can you describe the type of aircraft there?

A. This is a DC-4 Douglas. It is a Navy or Army version of it, I don't know which.

Q. Would you indicate which engine is the No. 1 engine? A. It is the one on the left outboard.

The Court: On your right, looking at the picture?

The Witness: It is the one on the right, looking at the picture.

Q. Would you mark that with an X as the No. 1 engine? A. Yes.

Mr. Riley: I wish to offer Plaintiffs' Exhibit 24 in evidence simply as something demonstrative, to help us make the point which we are about to try to make, just showing general configuration, exterior configuration, of a DC-4 type aircraft.

Mr. Koch: No objection.

The Court: Let the record show the offer made upon the condition stated, and there being no objection to the same, that exhibit 24, Plaintiffs', being a head-on view of four aircraft engines mounted on an airplane, is now admitted for illustrative purposes. [503]

(Plaintiffs' Exhibit 24 for identification received in evidence.)

Mr. Riley: He has identified it as a DC-4 type aircraft, Your Honor.

The Court: It is a four-motored plane, is it not?

Mr. Riley: Yes, Your Honor.

(Testimony of Edward R. Matthews.)

Q. Did you state what type of aircraft this was?

A. DC-4, Douglas.

The Court: Does the 4 refer to number of engines, or what?

The Witness: No, sir. That is a factory designation.

The Court: What distinguishes a DC with four engines and a DC with less than four?

The Witness: It is a series of airplanes that the manufacturer puts out.

Q. Referring to Plaintiffs' Exhibit 25 for identification, what type of aircraft was ship 601, which was used in Flight 324 on January 19, 1952?

A. It was a DC-4.

Q. The same type ship as shown in 24, is that right?

A. I can't say that. I don't know if this is a cargo or passenger version here. It is basically the same type.

Q. The engines are mounted the same?

A. The basic aircraft is the same.

Q. Same wing, same frame?

A. Same basic airplane, that's right.

The Court: Those connected with this case [504] are excused until 9:30 tomorrow morning.

(The court was adjourned.)

The Court: All are present. You may proceed.

Mr. Riley: May it please the Court, the plaintiffs would like to interrupt the testimony of Mr. Matthews to present Mr. Lewis, a pilot who has to

to be in Bellingham this afternoon, who will testify briefly on behalf of plaintiffs.

The Court: Have you any objection to withdrawing the witness for that purpose?

Mr. Koch: No.

The Court: The witness on the stand at the close of yesterday's session is withdrawn temporarily.

(The witness was withdrawn temporarily.)

ROBERT M. LEWIS

called as a witness by plaintiffs, was sworn and testified as follows:

Direct Examination

Q. (By Mr. Riley): Would you state your full name for the record, please?

A. Robert M. Lewis.

Q. Where do you reside?

A. Mercer Island.

Q. Have you had any experience in flying? [505]

A. About 6,000 hours.

Q. Would you describe, in general, your flight experience?

A. Navy training, co-pilot for Pan American for about six months. During the entire World War II, I was flying Naval Air Transport Service, passenger, cargo and what not.

Q. Have you engaged in passenger flights as pilot of aircraft in over water flights?

A. Considerably.

Q. Approximately how many hours of that type flying?

(Testimony of Robert M. Lewis.)

A. In excess of 2,000 hours, I imagine.

Q. Do you have experience in DC-4 type aircraft?
A. Approximately 3,000 hours.

Q. Have you had experience in weather flying?

A. Considerable.

Q. Do you still fly? A. Yes, sir.

Q. Approximately how much?

A. About forty or fifty hours a month.

Q. In your commercial transport pilot experience, over what route did you fly?

A. Practically all the world except Europe—South America, transcontinental, trans-Pacific, Alaska.

Q. In view of your experience, I will ask you whether or not you have an opinion as to whether or not in flying a DC-4 aircraft in over water operations, assuming that the [506] aircraft is flying from Anchorage to Seattle at an altitude of 10,000 feet and with forty passengers and a crew of three; and assuming that it becomes necessary approximately midway in the flight to feather the propeller of the No. 1 engine due to loss of oil: whether or not you have an opinion as to whether the crew should instruct the passengers in the use of life vests and life rafts and possible emergency landings?

Mr. Koch: Your Honor, I object to the question on the following grounds: first, that this witness has not been demonstrated to be an expert for the purposes of the question that has been asked. He may be a duly certificated and licensed pilot,

(Testimony of Robert M. Lewis.)

but whether or not—the question that is asked of him ignores the Civil Aeronautics Administration regulations, the company operating regulations, and he would have to be, if he were held by the Court to be an expert competent to express an opinion such as this, there would have to be considerably more limits to the hypothetical question that is asked in order that a proper answer be given.

The Court: The objection is overruled. You should answer yes or no.

The Witness: May I hear the question again?

(Last question read by reporter)

The Court: Answer yes or no as to whether you have [507] such an opinion. A. Yes.

Q. Would you state what your opinion is?

The Court: Do you wish to have the record show renewal of your objection?

Mr. Koch: Yes, I wish to renew my objection.

The Court: The objection is overruled. You may answer that, Mr. Lewis.

Q. Would you state what your opinion is, Mr. Lewis?

A. Well, if briefing is not conducted after take-off——

The Court: You have to take just what counsel stated in the question. You cannot consider anything else other than what counsel has said in his statement. Do you wish the question read again now?

The Witness: Please.

(Testimony of Robert M. Lewis.)

(Hypothetical question read by reporter)

A. Yes.

Q. Would you state what you feel should be done under the circumstances?

The Court: What his opinion is.

Mr. Riley: I would like to rephrase the question.

The Court: Do you want everything stricken?

Mr. Riley: No, Your Honor, I would like permission to rephrase it.

Q. Would you state your opinion as to what instructions should [508] be given, if any?

The Court: You may do that, and the objection to that is considered stated. Do you wish that?

Mr. Koch: Yes, Your Honor, I object to all these questions.

The Court: The Court will rule on the objection after you finally state the question. You may make the amendment you suggest.

Q. Would you state what, in your opinion, what instructions should be given to the passengers?

The Court: By whom?

Mr. Riley: By the crew of the aircraft.

The Court: Do you mean by the pilot to the crew, or by the crew to the passengers?

Mr. Riley: By the crew to the passengers.

The Court: You may do that. Mr. Koch, do you wish your objection to run to this question?

Mr. Koch: Yes, Your Honor.

The Court: The objections addressed to this ques-

(Testimony of Robert M. Lewis.)

tion are overruled. Will you now please state what that opinion is, as stated by counsel?

A. That they should be briefed in the use of Mae Wests and flotation gear aboard the aircraft.

Q. When do you feel that that briefing of passengers by the crew should take place under those circumstances? [509]

A. Immediately after takeoff; and if not done then, following the existence of emergency.

Q. In view of your experience in flying DC-4 type aircraft, would you consider that the loss of one of the engines in over water navigation, with a load of forty passengers; and assuming the same hypothetical question, with an aircraft down from Anchorage to Seattle, would you consider the loss of an engine to be an emergency situation?

Mr. Koch: I object to this question, too, your Honor. His opinion on whether the feathering of an engine—that should be answered only in terms of what the regulations and the law were at that time, and not what this witness' personal opinion as to the propriety or sufficiency of its loss may be.

The Court: The objection is overruled so far as the basis of the objection is concerned, but the Court will interpret the objection as including the form of the question, and that is sustained. You should not ask him to state only the affirmative of that question; you should ask him what his opinion is, if he has one, about whether or not something of that sort would be done, and what it is you are asking in your question.

(Testimony of Robert M. Lewis.)

Mr. Riley: Thank you, your Honor. I will strike the question.

Q. Would you state what your opinion is, if any, as to [510] whether or not the loss of an engine in a DC-4 type aircraft when flying over water between Anchorage and Seattle, using the hypothetical question previously stated, as to whether or not that would constitute an emergency situation?

A. Yes.

Q. In your opinion, do you feel that it is a sufficient emergency?

The Court: You should ask him what that opinion is.

Q. Would you state whether or not you have an opinion as to whether or not loss of an engine on a DC-4 type aircraft with a crew of three and forty passengers when en route from Anchorage to Seattle, flying over water, altitude of 10,000 feet, as to whether or not it is a sufficient emergency to warrant notification of Air-Sea Rescue facilities?

A. Yes, sir.

Mr. Koch: I object to that question, too.

The Court: Do you withdraw the other question you stated last before this one?

Mr. Riley: I intended to.

The Court: Notwithstanding the fact that he said yes, he had an opinion about the situation, you withdraw that question and state another one in the form last stated?

Mr. Riley: I asked him whether or not he had an

(Testimony of Robert M. Lewis.)

opinion as to whether or not this would constitute an [511] emergency situation.

The Court: And he answered "Yes," and didn't give his opinion.

Mr. Riley: I wish to ask him what his opinion is.

The Court: Strike the last question. The reporter had better read to the witness the question stated before, to which he made the answer "Yes."

(Question read by reporter as follows:

Would you state what your opinion is, if any, as to whether or not the loss of an engine in a DC-4 type aircraft when flying over water between Anchorage and Seattle, using the hypothetical question previously stated, as to whether or not that would constitute an emergency situation?)

The Court: You wish to ask him what that opinion is, as I understand it.

Mr. Riley: I would like to proceed further as to whether or not it was a sufficient emergency to——

The Court: You may proceed. His opinion has not yet been asked for.

Q. Would you state whether or not, in your opinion, it is an emergency?

The Court: The logical thing to do, if you wish to have the record show his opinion, is to ask him what that opinion is. [512]

Q. Would you state what your opinion is?

A. Of the emergency condition?

Q. Yes.

(Testimony of Robert M. Lewis.)

A. My answer was yes to that, and you want to know my opinion why it is an emergency?

The Court: We want to know your opinion on that question.

A. My opinion to that is that if the No. 1 engine was lost and the——

The Court: You had better not state any ifs and ands in your answer. State what your opinion is on the ifs and ands already stated.

A. My opinion is that the loss of an engine is always considered an emergency.

The Court: In that connection, what do you mean by loss of an engine?

The Witness: Where an engine must be feathered, referred to as feathered or secured, where the propeller is no longer turning.

Q. Would you state what your opinion is, if any, as to whether or not Air Sea Rescue facilities should be advised in the event of the feathering of an engine on an aircraft, a DC-4 type aircraft, in an over water flight between Anchorage and Seattle, with a crew of three and forty passengers?

Mr. Koch: Again the form of the question isn't as the Court has requested, as to whether he has an opinion on that question.

The Court: Mr. Riley, will you let the record show very clearly that you are first asking if on a certain state of facts he has an opinion, and then if he answers with an appropriate answer, then it is appropriate for you to ask him what that opinion is.

Mr. Riley: Thank you, your Honor.

(Testimony of Robert M. Lewis.)

Q. Mr. Lewis, will you state whether or not you have an opinion as to whether or not the loss of an engine in a DC-4 type aircraft when flying over water between Anchorage and Seattle with a crew of three and forty passengers is such an emergency as to require notification of Air Sea Rescue facilities?

Mr. Koch: I object to that, because I don't know—notification by whom, and to whom?

The Court: The objection is overruled.

A. I definitely think Air Sea Rescue should be advised.

(Approach plate marked Plaintiffs' Exhibit 26 for identification.)

Q. Showing you what has been marked as Plaintiffs' Exhibit 26, Mr. Lewis, can you state what that exhibit is?

A. It is a low frequency radio approach plate for Sandspit radio. [514]

Q. What is meant by the term "approach plate"?

A. It is a plate used by a pilot to make an instrument approach to a particular field. It indicates the magnetic bearings of the beams at that particular radio range station and the location of the field in reference to the radio range station.

The Court: What is that thing which you now hold in your hand and which has been marked Plaintiffs' Exhibit 26 for identification?

The Witness: It is a low frequency radio range approach plate, sir.

(Testimony of Robert M. Lewis.)

The Court: Do you mean it is a representation of it, a copy of something?

The Witness: It is a copy of an approach plate.

The Court: What do you mean by that term?

The Witness: It is a diagram of the area and the radio range station in reference to the field, and it is an instrument used by a pilot as a reference to make an instrument approach to that particular field.

Q. By whom are approach plates prepared?

A. They are prepared and approved by CAA.

The Court: It is a question of by whom was this one approved, if it was.

The Witness: This one was approved by the United States Air Force, used by MATS, Military Air Transport [515] Service, sir.

Q. These documents show the length of the runway?

A. Yes, there is a chart.

Mr. Koch: I object to any further testimony concerning the document itself other than identification of it.

The Court: That objection is overruled so far as anything other than the objection to the form of the question is concerned. Do you object to the form of the question?

Mr. Koch: No, your Honor.

The Court: The objection is overruled.

Q. Does it indicate the length of the runway of the field involved?

A. Yes, down in this corner it gives length and width and magnetic bearing.

(Testimony of Robert M. Lewis.)

The Court: You should answer yes or no.

Mr. Riley: I offer Plaintiffs' Exhibit 26 in evidence, if the Court please.

Mr. Koch: I object, your Honor. On the face of it, it shows that this exhibit was made April 5, 1956, which is something over four years after the accident. There is no testimony with respect to the changes in the field between the time of the accident and the present time, and it is highly prejudicial.

The Court: The objection is sustained. [516]

Mr. Riley: I have no further questions of Mr. Lewis.

Cross Examination

Q. (By Mr. Koch): What licenses, air pilot licenses, do you presently hold?

A. Civil Aeronautics Administration license, commercial.

Q. As commercial what?

A. Commercial pilot's license.

Q. How long have you held that license?

A. 1942.

Q. You testified that you were flying forty or fifty hours per month. By whom are you now employed?

A. I am self-employed, but I fly between forty and fifty hours a month for the Naval Reserve, ferrying aircraft and transporting personnel.

Q. You are flying for the Naval Reserve as a civilian on active duty from time to time?

A. Temporary additional duty.

Q. How long have you been so engaged?

(Testimony of Robert M. Lewis.)

A. Ever since the war.

Q. When did you last fly under your commercial license commercially-owned aircraft, regular airline aircraft?

A. I haven't flown commercial aircraft since 1942, when I flew Pan American.

Q. You flew with Pan American in 1942?

A. Co-pilot. [517]

Q. As a co-pilot for six months?

A. That's right.

Q. Over what run?

A. Miami - Rio de Janeiro.

Q. Have you ever landed at Sandspit?

A. I have never landed at Sandspit, no, sir.

The Court: Have you ever flown any air route between Anchorage and Seattle?

The Witness: Yes, sir, Naval Air Transport Service.

The Court: How long a time, if you recall?

The Witness: Between a year and a year and a half, and I have made several trips since then.

Q. When was that year to year and a half?

A. About 1942 into 1944.

The Court: What kind of work do you do now?

The Witness: I am in the commercial fish netting business, commercial fish netting supplier.

Q. Do you consider that it is your duty as a pilot to follow the instructions of the company or agency for which you are flying? A. Absolutely.

Q. Do you fly according to the Navy rules when you are flying Navy planes?

(Testimony of Robert M. Lewis.)

A. We fly according to Civil Air regulations.

Q. Would not the Navy perhaps impose even stricter regulations [518] than the Civil Aeronautics Administration regulations, under some circumstances?

A. There are certain circumstances not covered by CAA that they cover; otherwise, I would say no.

Q. Would you observe the Navy flying regulations in those respects? A. That's right.

Q. If you were flying for Northwest Airlines, would you fly in accordance with the CAA rules and regulations? A. Certainly.

Q. And in accordance with your company manuals? A. That's right.

Q. And if those manuals and CAA regulations classified emergencies under the category of actual emergencies and potential emergencies, and if they classified feathering an engine in flight as a potential emergency, would you act in accordance with the rules laid out for potential emergencies?

A. Yes, sir.

Q. If you were flying for a company under the circumstances where the Military Air Transport Service already gave the passengers briefing in the use of life vests and other emergency gear, and if your company also gave instructions with respect to that emergency gear at the time the flight got underway, would you then consider it necessary if an [519] engine were feathered in flight to give further instructions to the passengers respecting the emergency gear?

(Testimony of Robert M. Lewis.)

Mr. Riley: I am going to object unless Mr. Koch wants to offer to prove that these people were so instructed by the military, because he has stated in his hypothetical question that supposition, that they were instructed by the military.

The Court: The defendant has not begun his case in chief yet. The objection is overruled.

A. I wouldn't feel it necessary to further brief them.

Q. When you testified that the loss of an engine is always considered an emergency, were you distinguishing between various classifications of emergencies?

The Court: Such as what?

Q. Such as an actual emergency and a potential emergency.

A. It is a potential emergency.

Q. You consider it a potential emergency, rather than an unqualified emergency?

A. Well, it isn't an emergency at the time you feather the engine as long as you are holding altitude and air speed.

Q. It is only a potential emergency at that time?

A. That's right. In case of a wave-off at an airport or something——

Q. You testified that in your opinion Air Sea Rescue facilities should have been alerted in the event of an [520] emergency. Did you again mean an actual emergency, as distinguished from a potential emergency?

A. My statement there was that if there was an

(Testimony of Robert M. Lewis.)

aircraft en route with one engine out, Air Sea Rescue should be advised of his position, destination and its route.

Q. Of its position, destination and route?

A. That's right, which would be controlled by ATC.

Q. Would you consider that the crew had complied with this notification by giving notice to the air route traffic control center?

A. That's all that is necessary, is to call the closest radio range station and report your existing emergency or potential emergency.

Q. Would further alerting of Air Sea Rescue be done by the air route control radio center?

A. Yes, that and the dispatcher.

Q. I can't hear you.

A. The CAA radio communications and control, such as ATC, and the airline dispatcher, if he had gotten the word on it, which he naturally would.

Q. It wouldn't be the crew's duty to actually notify the Air Sea Rescue facility directly?

A. They can't.

Q. I beg your pardon?

A. In my opinion, they cannot directly notify Air Sea Rescue. [521] It is the ground facilities' responsibility.

Mr. Koch: I have no further questions.

Mr. Riley: I have no further questions, your Honor.

The Court: This witness is excused from the stand and may now retire.

(The witness was excused.)

(Discussion re calling other witnesses and further interrupting Mr. Matthews' testimony.)

The Court: You may call the other witnesses. Mr. Matthews' testimony is further interrupted.

FRANK B. KAVANAUGH

called as a witness by the plaintiffs, was sworn and testified as follows:

Direct Examination

Q. (By Mr. Riley): Would you state your full name, please? A. Frank B. Kavanaugh.

Q. Where do you live?

A. Auburn, Washington.

Q. Where are you employed?

A. Northwest Airlines, Bow Lake.

Q. What is your capacity there?

A. Mechanical foreman. [522]

Q. How long have you been so employed?

A. At Bow Lake, about six years continuous now in that capacity.

Q. Were you so employed and working there about January 19, 1952? A. Yes, sir.

Q. Would you describe in detail your duties as mechanical foreman?

A. I have the over-all general supervision of the mechanical department at the hangar there during the shift.

Q. Were you in January, 1952 responsible for installation on board the aircraft of the defendant company of life rafts? A. Yes, sir.

(Testimony of Frank B. Kavanaugh.)

Q. What were your responsibilities with respect to life rafts?

A. I was supervisor of the mechanics that did that type of work.

Q. Do you know or do you recall whether or not life rafts were installed in ship 601, which was Northwest Airlines Flight 324, January 19, 1952, prior to the time it departed for Japan from Seattle for that flight?

A. All I can say is they should have been.

Q. Were you personally responsible for the installation of the life rafts in each of the aircraft operating here at Seattle?

A. If they departed on my shift, I would say so.

Q. If they departed on another shift, whose responsibility [523] would it have been?

A. It was generally the responsibility of the inspection department to see that they were properly stowed. The mechanics installed them.

Q. What person or what individual at Northwest Airlines operations base at Seattle-Tacoma Airport in January, 1952—let's say specifically on or about January 19, 1952—would have been responsible for the proper placement of life rafts aboard the aircraft?

A. It would be the mechanic assigned to the job by his crew chief.

A. Are these rafts removed before and after each flight?

(Testimony of Frank B. Kavanaugh.)

A. No, sir, not necessarily. On those aircraft, they were not.

Q. When you say "on those aircraft," to what aircraft do you refer?

A. Aircraft that operate overseas, or aircraft operating overseas maybe one trip.

Q. If they are not then removed, then you don't have the responsibility for installing the rafts, is that right?

Mr. Koch: I object to the form of the question.

The Court: The objection is overruled.

A. They are checked each flight.

Q. Do you check them?

A. No, sir, I do not. I might spot check them.

Q. Who has the responsibility for checking the rafts? [524] A. Inspection.

Q. Who on January 19, 1952, would have been charged with that responsibility? Who was head of the department responsible for checking them?

A. Maintenance department.

Q. What individual or person in the maintenance department?

A. It would be the mechanic assigned to the job by the crew chief, running the maintenance check on the particular aircraft.

Q. And in January, 1952, to whom would the mechanic assigned by the crew chief report?

A. To the crew chief.

Q. And to whom does the crew chief report, or to whom is the crew chief responsible?

A. The foreman.

(Testimony of Frank B. Kavanaugh.)

Q. What foreman?

A. The foreman of the shift.

Q. Are reports of these inspections made by your mechanics?

A. They are signed for on a card.

The Court: What is your answer, yes or no?

The Witness: Yes.

Q. Are the reports in writing or are they oral?

A. They are in writing.

Q. Does anyone at the Northwest Airlines base and did anyone in January, 1952 have the duty of checking these written [525] reports?

A. The check forms are assembled by the crew chief.

The Court: Answer yes or no.

The Witness: Yes.

Q. Do you know Mr. Pitcher? A. Yes, sir.

Q. Is he responsible for any of these functions?

A. I don't believe so.

Q. Do you know Mr. Opsahl? A. Yes, sir.

Q. Is he responsible?

The Court: For what?

Q. For the placement of life rafts aboard the aircraft, for the inspection of the life rafts?

A. Yes.

Q. Are you responsible for the installation on board aircraft departing for an overseas flight, for the installation of life jackets? A. Yes, sir.

The Court: I would like to remind counsel that, as I understand it, counsel is concerned with what the condition was or what was or was not done

(Testimony of Frank B. Kavanaugh.)

with reference to the preparation for a flight of this airplane which executed Flight 324. You should have in mind that specific time. [526]

Mr. Riley: Thank you, your Honor.

Q. Do you know whether or not checks were made for placement of life rafts and life jackets of ship 601 which became Flight 324, January 19, prior to the time ship 601 left the defendant's base at Seattle-Tacoma Airport for its trip to Japan and return prior to the crash on January 19, 1952?

A. No, I do not.

Mr. Riley: I have no further questions.

Mr. Koch: No questions.

The Court: You may step down. Call the next witness.

(The witness was excused.)

WILBUR V. HEWITT

called as a witness by plaintiffs, was sworn and testified as follows:

Direct Examination

Q. (By Mr. Riley): Would you state your name, please? A. Wilbur V. Hewitt.

Q. Where are you employed?

A. At Northwest Airlines, Seattle-Tacoma Airport.

Q. What is your capacity there?

A. I am a foreman on the day shift. [527]

Q. How long have you been so employed?

A. For about eleven years.

(Testimony of Wilbur V. Hewitt.)

Q. Were you so employed during January of 1952? A. I was.

Q. Were you working on January 19, 1952?

A. I don't remember.

Q. You are a foreman. Would you state what your specific capacities are? Are you a mechanic? Describe in detail your duties.

A. My duties are to supervise the mechanical——

The Court: What kind of foreman are you? A mechanical foreman?

The Court: You may say what those duties are.

A. Supervise the mechanical functions of the day shift at the airport.

Q. Would you state what information you have, if any, respecting preparations for the flight of ship 601 to Japan and return, which became Flight 324, on January 19, 1952, and crashed at Sandspit, British Columbia, on that date, with respect to loading and placement of life rafts and life jackets aboard the aircraft?

A. That was so long ago I couldn't recall the facts.

Q. Do you recall the crash?

A. Yes, I recall reading about it.

Q. You were employed at Seattle-Tacoma Airport at the time? [528] A. Yes.

Q. Do you know whether or not any preparations were made with respect to the installation of life rafts and life jackets aboard that aircraft at that time?

(Testimony of Wilbur V. Hewitt.)

A. I couldn't say for positive, but they always are, always have been.

Q. You have no personal knowledge of this particular ship, this particular flight, at that time?

A. Well, at the moment, it has been so long ago that I couldn't recall any details of it.

Q. Do you feel that you would have recalled servicing that aircraft prior to its crash had you done so?

Mr. Koch: I believe the witness has——

The Court: Overruled.

A. I don't believe it would have made any difference. It has been so long ago.

Mr. Riley: I have no further questions.

Mr. Koch: I have no questions.

The Court: Step down. Call the next witness.

(The witness was excused.)

LAWRENCE M. THOMPSON

called as a witness by the plaintiffs, was sworn and testified as follows: [529]

Direct Examination

Q. (By Mr. Riley): Would you state your full name, please? A. Lawrence M. Thompson.

Q. Where are you employed?

A. Northwest Airlines, Seattle-Tacoma Airport.

Q. In what capacity?

A. Mechanical foreman.

Q. How long have you been so employed?

A. Since July, 1949.

(Testimony of Lawrence M. Thompson.)

Q. Were you so employed during the month of January 1952? A. Yes, sir.

Q. Were you working on or about January 19, 1952?

A. I don't remember a specific date.

Q. Do you recall the crash of Northwest Airlines Flight 324 at Sandspit, British Columbia, in January, 1952? A. Yes, sir.

Q. Do you have any personal knowledge as to whether or not life rafts and life jackets were installed or checked by you or any personnel in your charge prior to its departure for Japan and its attempted return as Flight 324 on January 19, 1952?

A. No, sir.

Q. Do you feel that you would recall, had you personally inspected the aircraft? [530]

A. It would be too long ago to remember, I believe.

The Court: Mr. Thompson, do you remember hearing about the accident at the time it occurred?

The Witness: Yes, sir.

The Court: Did anything occur to your mind from hearing of the matter to recall what part, if any, you had in the inspection of the mechanical work and functioning of the mechanical apparatus on the aircraft?

The Witness: No, sir.

The Court: Nothing occurred to you at that time as to what part you had in providing this plane with proper mechanical inspection and maintenance before the flight?

(Testimony of Lawrence M. Thompson.)

The Witness: No, sir.

The Court: You do not recall ever having had anything like that enter your mind at the time of the accident?

The Witness: No, sir.

Mr. Riley: I have no further questions.

Mr. Koch: No questions.

The Court: You may step down.

(The witness was excused.)

GERALD F. WHITTLE

called as a witness by the plaintiffs, was sworn and testified as follows: [531]

Direct Examination

Q. (By Mr. Riley): Would you state your full name, please? A. Gerald F. Whittle.

Q. Where are you employed?

A. Northwest Airlines, here at Bow Lake.

Q. In what capacity?

A. Mechanical foreman.

Q. How long have you been so employed?

A. Ten years.

Q. Do you recall the crash of Northwest Airlines Flight 324 on January 19, 1952?

A. Yes.

Q. Do you have any personal knowledge as to whether or not life rafts and life jackets were installed or checked in the ship which crashed at Sandspit on that date prior to its departure for Japan and its attempted return from Japan?

(Testimony of Gerald F. Whittle.)

A. No.

Q. Would you describe in detail your duties?

A. Well, I am a maintenance foreman, mechanical foreman, supervise mechanical work on the ships on my shift, the second shift.

Q. Would it be your duty to install life rafts and life jackets and to see that they were aboard an aircraft prior to its departure on overseas flights? [532]

A. Not my duty.

Q. Having in mind that you recall the crash of the aircraft on January 19, 1952, did you undertake to ascertain whether or not you had fulfilled all your duties with respect to this aircraft?

A. No.

Q. Do you have any personal knowledge respecting preparation of this aircraft for its flight overseas?

A. No, I don't remember.

The Court: Do you remember the accident?

The Witness: Yes.

The Court: Do you remember anything at the time of the accident occurring to you as to what part you had in outfitting or reviewing the proper maintenance of the aircraft for that flight?

The Witness: No.

The Court: Nothing occurred to you at that time, so far as you now recall?

The Witness: No.

The Court: Wouldn't it normally be of interest to you and the other employees as to who did this job before that plane took off for Japan after you

(Testimony of Gerald F. Whittle.)

heard it crashed? How could you help thinking about that?

The Witness: Well, this is the first—all ships that go overseas have flotation gear on. [533]

The Court: I know, but I am asking you a question: how could you help it? You claim you didn't think anything about what part you had in the mechanical arrangements and the outfitting of the proper equipment, safety equipment, on this airplane before the flight took off. I don't understand how you could help from thinking about what part you played in that after you heard of this ship's crash.

The Witness: At the time of the crash, I had no idea there was any problem in regard to equipment aboard the airplane.

Mr. Riley: I have no further questions.

Mr. Koch: No questions.

The Court: You may step down.

(The witness was excused.)

The Court: We will take a ten minute recess.

(Recess.)

Mr. Riley: Recall Mr. Matthews.

The Court: This witness has been sworn. He will now resume the stand for further interrogation.

EDWARD R. MATTHEWS

Direct Examination—(Continued)

Q. (By Mr. Riley): Mr. Matthews, referring now to what has been marked for identification as Plaintiffs' Exhibit 25, can you tell from the [534]

(Testimony of Edward R. Matthews.)

photograph what the picture indicates, what is in the picture?

A. No. 1 engine, the outer wing panel, a total No. 1 nacelle and engine.

Q. From the picture before you, can you tell the type of aircraft? [535]

A. It is a DC-4 type.

Q. Is the oil cooler assembly located within the engine nacelle?

A. Contained on the nacelle, but not within.

Q. In the case of an aircraft flying at night—for the purpose of the hypothetical question, approximately 1 A.M. Pacific Standard Time—, at an altitude of 10,000 feet, and the pilot reports a sudden loss of oil pressure and a large quantity of oil, do you have an opinion as to whether or not the cause of the loss of oil could be diagnosed while in flight? A. Yes.

Q. Would you state what your opinion is?

Mr. Koch: Your Honor, I object to the question because I don't believe that there is any background established,——

The Court: The objection is overruled.

Mr. Koch: May I state my objection?

The Court: Yes.

Mr. Koch: ——that this witness is an expert with respect to what can be observed on flight. He is head of the mechanical department, but this is a flying characteristic I am not sure he has knowledge of. If he has, I have no objection to his answering.

(Testimony of Edward R. Matthews.)

The Court: The Court feels that has been established already by the question. The objection is [536] overruled. You can ask him what that opinion is that he said he had.

The Witness: You can tell by your lights, by shining out on the nacelle, and can tell the proximity where the oil is coming from, and possibly by the rapid loss of oil you could probably tell from what system it is, and your temperatures will give you an indication of possibly where the problem might exist, and then just from your visual observance of seeing oil overflow in that area, you could possibly tell as to what component it would be.

Q. Do you feel it is possible or probable that the pilot could diagnose the cause of loss of oil?

A. Well, it is both possible and probable.

Q. Do you recall the deposition taken in the Northwest Airlines Office at Seattle-Tacoma Airport with Mr. Peterson, Mr. Karr of the defendant's counsel, Mr. Opsahl, Mr. Pitcher and yourself, wherein I inquired as to whether or not it would be possible to diagnose an oil cooler failure while in flight, and you replied that you could not without removing the cowling from the engine nacelle? Do you recall that testimony? A. I do.

Q. Is that what you stated?

A. I did state to you on the deposition that.

Q. Do you feel now that a pilot could diagnose it in flight?

A. I feel that he could diagnose close enough [537] to what the component may be. When I was

(Testimony of Edward R. Matthews.)

speaking in the deposition, I was speaking of the singular phrasing of oil cooler, and the oil cooler itself has many other components right in the adjacent area, its regulator, the lines attaching it, and we had an oil flap actuating door on that system, and when you speak of oil cooler and a leak in that area, it can be the cooler or its component parts. Singular, whether it is the core of the cooler, regulator, line, gasket, hose, etc., I couldn't single that out, no.

Q. In other words, your testimony is that you couldn't without removing the cowling?

A. I couldn't ascertain definitely, exactly where the leak is without removing the cowling, but I would know it would be in that area.

Q. Would you indicate by outlining on Plaintiffs' Exhibit 25 that portion of the engine nacelle?

Mr. Riley: Pardon me, your Honor. I would like to offer in evidence Plaintiffs' Exhibit 25, having been identified as a photograph showing the No. 1 engine nacelle of a DC-4 aircraft.

Mr. Koch: No objection.

The Court: Admitted.

(Plaintiffs' Exhibit 25 for identification received in evidence.)

Mr. Koch: It is admitted for the limited purpose, is it not?

The Court: For the same limited purpose as that with respect to admission in evidence of Plaintiffs' Exhibit 24.

Q. Referring to Plaintiffs' Exhibit 25, Mr. Mat-

(Testimony of Edward R. Matthews.)

thews, can you tell from the picture from where it was taken?

A. This appears to be from the cockpit, left slide window.

Q. You have been in the cockpit of a DC-4 many times? A. Yes.

Q. Could you see any more or less of an engine nacelle from the cockpit of a DC-4?

A. This is the main view. I would assume this is sitting in the pilot's seat. You can stand up, get up a little more forward. You can change your view slightly from what this photograph produces.

Q. Would you outline in ink or pencil, whichever you have, that portion of the nacelle in which the oil cooler assembly is housed?

The Court: The witness has used an ordinary pen and ink and drawn a circle around something, in which circle there is a figure 1, I believe. That relates to Plaintiffs' Exhibit 25.

Mr. Riley: I call the Court's attention, for the record, to the fact that I am removing from counsel table a file captioned "Record—Engine 701355".

(Record—Engine 701355 marked Plaintiffs' Exhibit 27 for identification.)

Q. Showing you what has been marked Plaintiffs' Exhibit 23, entitled "Pilot's Logs", would you indicate what that document consists of, if you know?

A. This document is the log that is kept aboard the aircraft for pilots to make their entries, and for the maintenance to sign the back side of the

(Testimony of Edward R. Matthews.)

sheet for their entries and corrections and of any maintenance or work performed on the aircraft.

Q. What entries would a pilot make on the pages contained within Plaintiffs' Exhibit 23?

A. What type of entries?

Q. Yes.

A. His entries would then become—it is made up so it is more or less a question and answer book. It is outlined airplane, power plants, instruments, radio, etc. He makes his entries under those different components of the aircraft of any malfunctioning or irregularities.

Q. How often are these reports rendered by a pilot?

A. Between every point to point of his flight.

Q. Is this a requirement made in the usual course of business that a pilot always at the end of a flight renders a report, and in the form of the pages contained in that book? A Yes. [540]

Q. Would each of the pages in that book represent individual flights of the particular aircraft involved? A. Of the aircraft involved, yes.

Q. Are the entries made by the maintenance personnel involved in the logbook required to be made by company policy and procedures by the maintenance people involved?

A. Not all entries are required to be in the logbook, no, in maintenance work.

Q. The entries which are made are required by company procedure, is that right?

A. That's right.

(Testimony of Edward R. Matthews.)

Q. And they are made in the usual course of business? A. That's right.

Q. For what period, referring to Plaintiffs' Exhibit 23, can you tell us what aircraft is reported by that document?

A. The title on the face of it is Ship 601. I assume that each sheet in here is 601.

Q. Is Ship 601 the same ship which crashed at Sandspit, British Columbia, on January 19, 1952?

A. I can't answer that. I don't know.

Q. Does it indicate the serial number of the aircraft on any of the documents within the log?

A. No, just the 601, the abbreviated ship number.

Mr. Riley: I will offer Plaintiffs' Exhibit 23 in evidence, and I believe the record is clear that [541] ship 601 is Douglas DC-4 45342, but it was the ship which crashed at Sandspit, British Columbia. I think that has been adduced in previous testimony, that this was one and the same ship. It has been designated alternatively ship 601, which was Flight 324 on that date. I will ask counsel if he agrees with that.

Mr. Koch: I do not think there is any issue on that particular point, but I have other questions to direct. I have these questions with respect to admissibility of this exhibit. In the first place, I think that the testimony has been that the entries were made by the pilot in part, and if by others, there has been no testimony on that. As I understand it, this record was made up at St. Paul from entries which the pilot made. The pilot's logsheets were

(Testimony of Edward R. Matthews.)

taken off the airplane and sent to St. Paul. Those logsheets never came to Seattle, never were in the possession, custody or control of any witness of the Seattle Northwest Airlines base, and if they are company records prepared and made in St. Paul, then familiarity of this witness with the making of those records and the contents of them is in question.

Furthermore, these have been offered in a considerable number, and the ones at or about the time of the accident, perhaps a month or so back, I can see the relevancy of them, but the ones that go back many, many weeks and months and which [542] may relate to the engine at a time when it had not been given the top overhaul on which testimony has been put in the record would have little bearing, and I think would be misleading.

The Court: Do you wish to make any response to those statements?

Mr. Riley: This is where we left off yesterday. Mr. Koch stated, and I call your Honor's attention to his statement at the time of the motion to quash the subpoenas, he said: "I am willing to agree that all material records of the company made in the regular course of business, that if they are relevant, they may come in." He made some further remarks with respect to a particular parcel of documents, including some photographs, which are contained in this file on counsel table.

The Court: Which has not been marked?

Mr. Riley: Which has not been marked. Aside

(Testimony of Edward R. Matthews.)

from that, I believe Mr. Matthews has identified the document, what it contains, that they are made in the regular course of business, but even though he did not make the entries himself, I do not understand counsel's objection.

The Court: The objection is overruled. Plaintiffs' Exhibit 23 is admitted.

(Plaintiffs' Exhibit 23 for identification received in evidence.) [543]

Mr. Koch: In the statement, relevancy was one of the very conditions I reserved, your Honor.

The Court: You have reserved it, and the Court has ruled upon it.

Q. I will ask you now to refer first to Plaintiffs' Exhibit 27 and particularly to page 1 thereof, and peruse those documents and indicate what that record consists of, if you know.

A. Page 1 is a statement marked as page 1. Do you want me to read the statement?

Q. No. Would you refer to the next page underneath the statement, page 2, and refer to the entries there made and the records and indicate what they are, if you know?

A. These are copied from the logbook, the pilot report and the mechanic report that counteracts the pilot report.

Q. Do those records relate to a particular aircraft and a particular engine?

A. Yes, this is ship 601.

Q. Does it designate the serial number of the engine involved? A. No, it does not.

(Testimony of Edward R. Matthews.)

Q. Would you refer to page 1 and ascertain whether or not there is a reference to a particular engine?

A. Page 1 states "Engine 701355".

Q. Would you refer to the following pages which are numbered 1-8 and ascertain whether or not the [544] documents relate to engine 701355?

A. There is No. 1 engine. They all refer to the position, not the engine number.

Q. Are there reports on the following pages?

A. Excuse me, not all No. 1. There are some on No. 4 here, too, and some on No. 1 and 2 engines.

Q. Are all the reports on the following pages taken from the pilot log reports which are set forth in Plaintiffs' Exhibit 23?

A. These following reports here are taken from pilot's logs. As far as I am able to ascertain, these are made up in St. Paul. I assume they are from the logbook.

Mr. Riley: I will offer Plaintiffs' Exhibit 27 in evidence, if the Court please, and call the Court's attention to the file and the documents contained therein. I believe that they are self-explanatory. We have previously adduced testimony——

The Court: Have you asked the witness if he knows, and if he does, to state what subject matter is dealt with in the communication?

Mr. Riley: Yes, I have, your Honor, and I understand his testimony is that these are summaries and extracts taken from the pilot's logs referring to engine 701355, and showing the——

(Testimony of Edward R. Matthews.)

The Court: Whose extracts? [545]

Mr. Riley: He stated they were taken in St. Paul from the company records, that he believed they were taken, is that correct, Mr. Matthews?

The Witness: Yes, I believe they are. I am not sure.

The Court: And what else?

Mr. Riley: We previously adduced testimony that the No. 1 engine on Flight 324 which crashed at Sandspit, the subject matter of this action, was Engine No 701355, and I believe that an examination of that file before your Honor marked Plaintiffs' Exhibit 27 is altogether clear that it is a summary of all the reports of discrepancies on Engine No. 701355 from the time of its acquisition by Northwest Airlines until the crash of the aircraft. The records contained in the file do relate and do show that this particular engine was installed on two different positions prior to its installation in the No. 1 position. To meet counsel's objection that this is irrelevant, I point out that this record will show, and it does contain, a summary of all the malfunctions of that engine from the time of its acquisition, approximately eight months.

The Court: Whose summary?

Mr. Riley: Mr. Matthews states it comes from the pilot logs, taken from the company records.

The Court: The summary does not come from the logs. State where you see and have found the summary. [546]

(Testimony of Edward R. Matthews.)

Mr. Riley: He has identified it as Plaintiffs' Exhibit 23, the pilot log.

The Court: You do not appreciate the Court's question, Mr. Riley.

Mr. Riley: I am sorry, your Honor. May the witness have Plaintiffs' Exhibit 27?

The Court: The Court is not directing how you shall do it. You may be able to point out a subpoena duces tecum that describes certain material, and you may wish to avert to what conduct has been pursued and what has been done in response to that subpoena duces tecum, among other things.

Mr. Riley: Thank you, your Honor. I call your Honor's attention to the subpoena duces tecum in the Court's file. I will refer to the first one directed to Northwest Airlines, Inc., by its manager.

Paragraph 4 of that document: "All of defendant's records relating to aircraft engine No. 701355, including its report identified as 'Record of Engine #701355', including all reports of discrepancies in said engine from the time of its acquisition from TWA in 1951 until January 19, 1952 and all communications relating thereto, to or from Northwest Airlines."

This file was exhibited to me in response to a previous subpoena duces tecum.

The Court: By whom was it exhibited to you?

Mr. Riley: By counsel for defendant, in counsel's office, and they were further delivered here in court, at the time of the motion of Mr. Koch to quash subpoena duces tecum, they were further de-

(Testimony of Edward R. Matthews.)

livered here, when I asked the Court that they be held in Court for that purpose.

The Court: Was there any statement made about this file by counsel who produced it?

Mr. Riley: No, no specific statement.

The Court: Was there any statement which refers to this file which has previously been referred to by your statement, by counsel as to what they were?

Mr. Riley: Yes, your Honor, and these came from counsel table. Mr. Koch has stated, "I am willing to agree that all of this material are records the company made in the regular course of business, and if they are relevant, they may come in."

The Court: The Court wishes to rule.

Mr. Koch: Your Honor, may I ask the witness a question or two?

The Court: No, the Court is ready to rule. You may cross examine the witness later.

Mr. Koch: Mr. Riley is now offering it in evidence, and this only goes to relevancy. I am trying to determine——

The Court: The Court feels that a prima facie showing has been made. You may cross examine. The Court will consider the weight of it after you cross examine. The objection is overruled. Plaintiffs' Exhibit 27 is now admitted.

(Plaintiff's Exhibit 27 for identification received in evidence.)

Q. I will ask you to state what significance a report by a pilot of "Clean engine and accessory

(Testimony of Edward R. Matthews.)

section" is to a mechanic in Northwest Airlines?

A. A clean engine section?

Q. "Clean engine and accessory section".

A. Spray it down, if he just wanted it cleaned.

Q. If an engine is dirty with oil and is reported as "engine dirty", or "engine oily", do you undertake to just clean the engine, or do you undertake to ascertain where the oil comes from?

A. We want to definitely ascertain where the oil leak comes from.

Q. Would you say, in your opinion, that if a pilot reported an engine dirty and the only corrected report reported by maintenance was "engine cleaned", would you say that that was proper procedure?

A. It would have a large bearing on just how dirty it was and what type of dirt. It could be a layer of oil with dirt if they had been in some airport where there was a lot of dust. [549] It could have been a little layer of oil picked up heavy dirt on it, which is a dirty condition. I have never known a pilot to report just "dirty engines." It isn't in our nomenclature of the business.

Q. If the pilot did report a dirty engine, do you feel that the mechanic in charge should do more than wash the engine?

A. Absolutely. I think he should investigate it.

Q. What is the significance to you as a mechanic of a dirty engine or an oily engine?

A. It is significant that you have some—possibly some minor leaks somewhere.

(Testimony of Edward R. Matthews.)

Q. What does blow-by mean?

A. Blow-by is a term, mechanical phrase, where we have two applications, that I know of. There are several applications of it. There is blow-by in the piston rings, in the internal mechanism of the engine. There is blow-by phraseology we use on valves. There is a blow-by phrase on the joints of the exhaust collector rings. There can be blow-by—it can be phrased as any place where there is any passing of gasses or liquids outside of its normal channel.

Q. It is an abnormal condition?

A. Not necessarily. In its application of exhaust systems, it is a normal process. Inside the engine, a blow-by is not considered normal. It can happen and we not know about it. [550]

Q. If the blow-by were visible in the manifold sections of an aircraft engine or by the valve sections intake or valve sections, would that be a serious condition and require correction?

A. The blow-by could be to the extent of open flame, true, it would be hazardous.

Q. If you were confronted with a report which stated, a pilot report in the pilot log which stated, "Oil leak at blower control on rear case mounting pad and bushing," would you state what the significance of that report would be?

A. I didn't hear one word of it. Blow-by in the clutch?

Q. "Oil leak at blower control on rear case mounting pad and bushing."

(Testimony of Edward R. Matthews.)

A. You want to know the significance of that type of leak?

Q. Yes.

A. It could be very insignificant, depending on the amount of oil that has been passed through there.

Q. Failure of the blower control and the bushings and gaskets around it is a very serious problem, isn't it?

A. No, it isn't a serious problem.

Q. If you lost the blower control gasket and the gaskets in flight, it would be a serious problem, wouldn't it?

A. The only seriousness—I am speaking from a [551] mechanical standpoint—it isn't serious as far as we are concerned. It can be a slight oil leak. The seriousness of the pilot predicament, I couldn't answer. It depends on what blower, his altitude, his conditions of flight, whether it is considered serious. Even if he gets stuck on one blower or the other, I don't consider it a serious condition.

Q. Would you say it was potentially serious?

A. No, I don't even think it is potentially serious.

Q. If you had a report which stated, "No. 12 exhaust dogleg loose in exhaust port with blow-by. Call inspector when dogleg is removed," would you state what that report would indicate to you?

A. It would just indicate to me we have an exhaust pipe that is a little bit worn, and we want to have an inspector there to be sure we get a posi-

(Testimony of Edward R. Matthews.)

tive fit when it goes back on. It is a very common term with us.

Q. What is a cracked cowl flap ring?

A. Cracked cowl flap ring is probably a fatigue crack due to the oscillation of the cowl flaps over a large period of time in their support bolts, which is a very minor nature and consequence. It can't go far.

Mr. Koch: Your Honor, on questions of this type would it be appropriate to have counsel state the engine involved and the date to which he makes reference?

The Court: Will you try to make everything [552] specific when you are inquiring concerning condition or presence of any mechanical thing or any apparatus that is physical in nature?

Mr. Riley: Yes, your Honor, I will.

Q. If a report on engine 701355, a pilot report for January 9, 1952, reported, "Engine backfired several times southwest of Shemya. Fuel flow oscillating continuously on the No. 1 engine," what would the significance of that report mean to you as the chief mechanic?

A. Possibly irregularity in the fuel control mechanism.

Q. If a pilot reported next day on the same ship and engine No. 701355, "Fuel flow oscillating", would that indicate to you that the discrepancy had not been corrected?

A. If the backfiring report had been corrected and no further reports on backfiring, it is possibly

(Testimony of Edward R. Matthews.)

in our fuel flow transmitter, probably an oscillation in the instrument. If we are getting a normal engine operation, the transmission of the indication to the pilot getting an oscillation on his fuel flow may be erratic. The engine can still be a normal operating engine, could have been corrected with spark plug or ignition problems.

Mr. Riley: From the pre-trial order, I would like to Exhibit A-3. I will ask that this document, which is attached to the pre-trial order and is identified in paragraph 13 of the pre-trial order as [553] "Flight Plan of Flight 324 of January 18 and 19, 1952, covering the Anchorage to McChord Field leg of the flight, including a forecast cross-section from Anchorage to Seattle, extracts of weather sequence, weather forecast and aircraft service check,"—I will ask the witness to identify it. I believe it is sufficiently identified by the pre-trial order for the record in plaintiffs' case in chief.

Mr. Koch: No objection.

The Court: Do you offer it?

Mr. Riley: I do now offer it.

Mr. Koch: No objection.

The Court: Defendant's Exhibit A-3 is now admitted upon the offer of the plaintiffs.

(Defendant's Exhibit A-3 for identification received in evidence.)

Q. What is the capacity of the oil tanks on individual engines in DC-4 type aircraft?

A. I can't state to the gallon.

Q. Could you refer to A-3 and refer to that por-

(Testimony of Edward R. Matthews.)

tion which is called "Aircraft Service Check", the last page? A. I have it.

Q. Are those documents made for each flight by defendant airlines in the regular course of business? A. Yes, that's right.

Q. What does that portion of Defendant's [554] Exhibit A-3 which captioned "Aircraft Service Check"—what information is contained in that part of A-3?

A. It contains the fueling, the oiling, and the adi, oxygen, hydraulic and turbo, but it isn't required on this aircraft. It is made up to cover all our types of aircraft.

Q. Referring to that document, I will ask you to refer to the portion indicated as oil load. Are you able to indicate what the capacity of the oil tanks on a DC-4 type aircraft is?

A. This is the total each tank, is what we have here. It isn't the maximum capacity the tank will hold. I don't recall what that is.

Q. Does that indicate the maximum the company carried as a matter of policy?

A. That's right.

Q. Do you state that that is less than the maximum capacity of the tank in the nacelle?

A. It has to be.

Q. Can you state approximately what the maximum capacity of the oil tanks in each nacelle is?

A. I would hate to guess and be wrong. I'm strictly guessing.

(Testimony of Edward R. Matthews.)

Q. Would you state to the best of your ability what the capacity would be?

Mr. Koch: I object to any further inquiry along this line. The witness says he doesn't know and [555] would have to guess.

The Court: As to this particular question, the objection is sustained. If you wish to ask certain further types of information, the Court is not excluding that, but the objection to this question at this time is sustained.

Q. Does the report indicate the amount of oil which was supplied to the aircraft prior to its departure from Anchorage to Seattle, the aircraft being Flight 324, Northwest Airlines, January 18-19, 1952?

A. Yes, this indicates the amount of oil that was aboard the aircraft.

Mr. Riley: I would like to have the Court see the exhibit.

The Court: Have you any knowledge sufficient to support any accurate comment you might make on how this amount of oil—was it gas or oil?

Mr. Riley: Oil.

The Court: —provided for the use of this aircraft on this flight compares with that normally supplied for this type of aircraft in the past, prior to this date?

The Witness: That's right. Twenty gallons is the normal for DC-4 type.

The Court: How much was it in this case?

The Witness: It was twenty.

(Testimony of Edward R. Matthews.)

Mr. Riley: I am referring to that portion of the [556] report, your Honor, which is captioned "Oil load."

The Court: "Total oil load", in the second numbered paragraph at the right-hand edge of the page?

Mr. Riley: Yes, your Honor.

The Court: "Engine oil report" is the subject?

Mr. Riley: I am referring to that portion which indicates ten gallons of oil was added to the No. 1 engine for a total load of twenty gallons.

The Court: The Court has made the observation.

Q. If the aircraft service check report indicated that the No. 1 engine of a DC-4 had used much more oil than the other three engines, would you regard the report as significant?

A. Well, yes, I would regard it as significant.

Q. Do you feel that if the No. 1 engine report indicated that ten gallons of oil had to be added prior to its departure, whereas the other three engines required less than three gallons each, would you feel that this report would require an investigation prior to the dispatch of the aircraft after the loading of oil?

Mr. Koch: I don't believe the witness was given an opportunity to answer the last question before Mr. Riley propounded the present one.

Mr. Riley: He stated it was significant.

Mr. Koch: He was talking and would have [557] completed his statement if Mr. Riley had given him the opportunity.

(Testimony of Edward R. Matthews.)

Mr. Riley: I only asked him if it was significant.

The Court: The Court overrules the objection. Read the last question.

(Last question read by reporter.)

A. No.

Q. What, then, is the significance of the large additional amount of oil required for one engine as against the other engines?

A. There could be a lot of factors, depending—maybe somebody has drained the sump or screen on this engine, checking it, have gotten into the oil system checking for contamination. They could do it for a hundred reasons. We don't challenge the amount of oil added, being alerted by the pilot and the amount he records as consumption on the flight. We service it and send it out. It has gone through too many hands in servicing. It isn't necessary to mean——

Q. Would a check be made to see whether or not the engine had consumed the oil?

A. Not unless the pilot reported it on in-bound flight.

Q. If the reports which were submitted did show that this amount of oil was used on the in-bound flight, do you feel an investigation or inspection of the engine should be accomplished under those circumstances? [558]

A. If we had the in-bound information and led us to believe that we had something abnormal, yes, it is our duty to check.

(Testimony of Edward R. Matthews.)

Q. Do you know whether or not the records of Northwest Airlines show whether or not any check was made with reference to Flight 324 prior to its departure from Anchorage as to the reason for the consumption of oil by the No. 1 engine of that aircraft on its flight from Shemya to Anchorage on January 18, 1952? A. No.

Mr. Koch: I object to that question, your Honor. The witness has already testified that there is nothing that indicates that the engine did consume that amount of oil, even though oil was added during the course of the servicing.

The Court: Read the question.

(Last question read by reporter.)

A. No.

Q. Would you state what your duties are with relation to the installation of life rafts, life jackets and emergency equipment in aircraft of the defendant airline, and specifically, your duties as of January 19, 1952?

A. My duties are top supervision of the mechanical department at Seattle. It is under my jurisdiction that these rafts and vests are boarded on the aircraft.

Q. Do you have any personal knowledge as to whether or not this aircraft which was ship 601, [559] which became Flight 324 of January 19, 1952, was loaded with life rafts and life jackets and emergency equipment prior to its departure for Japan? A. It had its proper gear on.

(Testimony of Edward R. Matthews.)

Q. Do you have personal knowledge of that fact? A. I do.

Q. Did you check it personally?

A. I did not.

Q. Who is Burt Wien?

A. Burt Wien was an equipment service man that worked—an employee of Northwest Airlines.

Q. Is he still employed with the defendant airlines? A. No.

Q. Did he have anything to do with Flight 324 prior to its departure for Japan and its attempted return as Flight 324, January 19, 1952?

A. Other than the testimony I have already heard, I don't know. I was unaware of it.

Q. How long was he employed by the defendant company?

A. My guessing, he was there roughly two and a half years, in that neighborhood.

Q. Was he employed in January 1952?

A. I do not know, but I heard testimony to the fact.

Q. Did you discharge him?

A. I did not. Supervisors under me did. [560]

Q. He was discharged, is that correct?

A. I'm not positive if he was discharged or laid off. I haven't checked the records on it.

Q. He was an alcoholic, is that right?

Mr. Koch: I object to the leading form of the question and also to the repetitious nature of the testimony.

(Testimony of Edward R. Matthews.)

The Court: The objection is overruled in this instance. If you know, you may answer.

A. Strictly a personal opinion, from personal calls at my home at late hours, and I have never observed——

The Court: Would you just answer yes or no?

A. No, I don't know.

Q. Do you recall the deposition with Mr. Karr, Mr. Peterson, Mr. Opsahl, Mr. Pitcher, in the defendant Northwest Airlines' office at Seattle-Tacoma Airport in February, wherein you did state he was an alcoholic? A. I did say that.

Mr. Riley: I have no further questions.

(Brief discussion among Court and counsel re length of trial.)

Cross Examination

Mr. Koch: Will you hand the witness Plaintiffs' Exhibit 22?

Q. Yesterday you testified that the No. 1 engine, [561] according to that white card for January 1952, showed under the initials TSO, time since overhaul, 1725 hours 16 minutes, is that correct?

A. That's right.

Q. Is there a similar reference to the time since overhaul on the yellow cards which are also part of that exhibit and are designated engine accessory records?

A. Yes, engine time since overhaul is recorded on this yellow card.

(Testimony of Edward R. Matthews.)

Q. What was recorded on the yellow card, December 17, 1951?

A. Engine time since overhaul is 555.16.

Q. On December 17, 1951?

A. Yes, installed 12/17/51.

Q. On the white card that you testified from yesterday, what is the time since overhaul shown on that same date?

A. On the 17th?

Q. December 17, 1951.

A. The white card shows 1725.16.

Q. On what date?

A. On the 17th.

Q. Do you have the card, the white card for December, 1951?

A. This is January.

Q. Go through the cards and find the December 1951 card.

Mr. Riley: I would like to know what relevancy this has. We are concerned with the time on the [562] engine at the time of the accident, and that was the scope of my direct examination.

The Court: You mean questions on direct examination confined this witness' attention to that time, is that what you meant to say?

Mr. Riley: Yes, your Honor.

The Court: Do you make the point that it did?

Mr. Riley: Yes, your Honor, and that was, as I recall it, the sole scope of my examination at that time, was the amount of time on that engine at the time it crashed.

The Court: This matter is something that might be gone into, if at all, on defendant's case in chief, if counsel's observations are correct.

(Testimony of Edward R. Matthews.)

Mr. Koch: The plaintiff has put in an exhibit, and one part of the exhibit shows the elapsed time on a particular date, and the other part of the same exhibit shows a different elapsed time on the same date. Now, these elapsed times are cumulative. Each time the plane is up in the air ten hours, ten hours of elapsed time is added to the cumulative total. It is certainly most relevant, and directly related to the direct examination, to show that on one set of records there was one total time, whereas on the same date the total time on the other card, which has been erased, and I would like to show——

The Court: Is the import of this question by the [563] present interrogator that another part of this Exhibit A-3 shows some other record that concerns this inquiry?

Mr. Koch: A part of the same exhibit shows that the engine was not overtime at the time of the accident.

The Court: In this same exhibit?

Mr. Koch: In this same exhibit.

Mr. Riley: If the Court please, Mr. Koch knows very well better than that. There is no question but what that engine was overtime and that the records show it was overtime at the time of the crash.

The Court: Both counsel are out of order in arguing the question or in construing the Court's remarks as arguing the question. I ask them to desist taking up the Court's time. Read the question.

(Last question read by reporter.)

The Witness: I can.

(Testimony of Edward R. Matthews.)

The Court: Do you have it?

The Witness: Yes, sir.

A. According to that card, what was the total elapsed time on December 17, 1951?

The Court: The objection is overruled as applied to this question.

A. On December 17, it was 25 hours and 35 minutes.

Q. Is that the time for that day?

A. That is the only entry, would be the total for that day, yes. [564]

Q. Just below the 25 hours 35 minutes you testified to, do you see a cumulative total in the same column, right below the 25.35? A. 1346.06.

Q. Is that hours?

A. I assume to be hours, yes.

Q. On the same date, the yellow card shows a total of how many hours on the No. 1 engine?

A. 17 December, the yellow card shows engine TSO, 555.16.

Q. On the white card, has there been an erasure over which the 1346 hours has been written?

A. Yes, it appears to be.

Q. Can you read what it was previously?

A. It appears to be 555.16.

Q. From December 17, 1951, to the time of the accident, how many additional hours was the No. 1 engine in use? A. From what date?

Q. From December 17, 1951, to the time of the accident.

(Testimony of Edward R. Matthews.)

A. I don't think I can read this thing to interpret that.

Mr. Riley: I think that record shows it, your Honor. He is using our time in this case, and I object to it.

The Court: The objection is sustained. I wish you to handle it in some other way. The Court expressly reserves to you the right to ask that same question as part of defendant's case in chief. [565]

Mr. Koch: My intention has been to examine this witness with respect to the direct examination, conduct a proper cross examination, and not recall him during the defendant's case.

The Court: Try to avoid taking up the time. The Court has limited the plaintiffs' time.

Mr. Koch: Would it be agreeable to the Court if I withheld further examination of this witness and conducted such cross examination in connection with my direct examination at the time I put on defendant's case?

The Court: It certainly would.

Mr. Koch: I will be glad to do so.

The Court: Is there any other question that is really important in connection with direct examination?

Mr. Koch: One or two more questions.

Q. On direct examination, you testified that from the pilot's compartment, from the cockpit, it would be possible to determine that an oil loss was in fact coming from the oil cooler assembly, did you not? A. Yes.

(Testimony of Edward R. Matthews.)

Q. As distinguished from the rest of the No. 1 engine? A. Yes.

Q. I wonder if you would explain, because it wasn't clear to me, how that statement differed from testimony counsel asked you about on a prior deposition I did not attend. [566]

Mr. Riley: I believe he has already testified as to the difference between his testimony.

The Court: You mean in direct examination?

Mr. Riley: In direct examination.

The Court: The objection is overruled.

A. On the deposition, as I stated before, I was asked the question if I could determine whether it was an oil cooler leak or not. I think I said no, I couldn't actually determine. I was thinking singular, of the core of the cooler or jacket of the cooler. There are so many component parts of this cooler, the lines, the regulator, the actuating mechanism of it, to actually——

The Court: I am trying to find out what you are going to tell counsel, what you said on direct examination about that fact. Don't go into a long discussion of it. Counsel asked you to point out the difference between what you said in your deposition and what you said on the witness stand.

The Witness: The difference—I said on the deposition I couldn't, and here on testimony I said you can.

Q. You explained, as I understood it, what you were attempting to convey on the deposition, and I would like you to clear it up for me now.

(Testimony of Edward R. Matthews.)

A. When I was asked if I could tell if it was [567] the oil cooler, I said I couldn't. I don't think there is anybody can tell where a leak is with a jacket on it.

The Court: We don't care what the fact is. What he is asking you is what is the significance of the difference in your statement in the deposition and your statement on direct examination from the witness stand. He does not want anything else. Just point out that difference, if there is any difference.

The Witness: I don't remember all the statements enough to be able to clue my differences.

The Court: Ask him another question.

Q. Referring to Plaintiffs' Exhibit 25, what is it that you have circled in ink?

A. It is the oil cooler cowl.

The Court: What is the function of that cowl?

The Witness: To jacket in the oil cooler.

The Court: Do you mean to suck in air from the outside of the plane as it moves through the air into what?

The Witness: Through the oil cooler cores.

Q. Does the oil cooler cowl house the entire oil cooler assembly? A. Yes, that's right.

Q. Could you determine from a position in the compartment of the plane the pilot occupies whether—

Mr. Riley: I object to the question. This question [568] is obviously repetition. It has already been covered by counsel on his cross examination.

(Testimony of Edward R. Matthews.)

Mr. Koch: I haven't even asked the question.

The Court: Let counsel finish the question, and then the Court will consider it.

Q. Did you testify on the prior deposition that you would be unable to tell whether an oil loss came from the area circled in that picture, from the oil cooler cowl?

The Court: Answer yes or no.

A. No, I don't think I did.

Q. Did you mean on that deposition that you couldn't tell from what portion of the components——

Mr. Riley: Counsel is leading the witness.

The Court: The objection is sustained. Ask him what he meant.

Q. What did you mean?

A. I meant I couldn't tell exactly where the oil was coming from.

Q. When you say "exactly", did you or did you not intend to state that you couldn't tell whether it was coming from the oil cooler cowl?

A. You can definitely tell it is coming from the oil cooler cowl.

Q. You could always tell that?

A. That's right. [569]

The Court: You may have five more minutes to complete cross examination.

Q. Could you tell whether it was coming from some particular component housing in the oil cooler cowl? A. No, I couldn't tell that.

Q. Referring to A-3, which is the flight plan,

(Testimony of Edward R. Matthews.)

aircraft service check, and any other part of that exhibit, are you able to determine the amount of oil loss on the No. 1 engine between Shemya and Anchorage? A. From this report? No.

Q. What is the normal oil carried by a DC-4?

A. Twenty gallons.

Q. In each engine? A. In each engine.

Mr Koch: I have no further questions, your Honor.

Mr. Riley: I have no further questions.

The Court: You may step down.

(The witness was excused.)

Mr. Riley: I would like now to commence publication of the deposition of Lt. Donald E. Baker, taken December 8, 1956, your Honor.

Reading of deposition commenced at line 4, page 3:

The Court: We will take the noon recess until 1:30. [570]

(Discussion re compensation of service personnel.)

The Court: You gentlemen draw up a stipulation. Court is recessed until 1:30 this afternoon.

(Recess.)

The Court: All are present. You may proceed.

Mr. Riley: I have stricken large portions of this, your Honor, so it should go very fast. I would like to commence at line 3, page 5.

(reading deposition)—

Mr. Riley: I will stop at line 20, page 5. I would like to skip to line 10, page 7.

(reading deposition)—

Mr. Riley: I would like to stop at line 25, page 8, and skip to line 24, page 11.

(reading deposition)—

Mr. Riley: I would like to skip from line 19, page 14, to page 16, line 8.

(reading deposition)—

Mr. Riley: I will skip from line 13, page 18, to line 6, page 20.

At line 15, page 20:

The Court: The objection is overruled.

Reading of deposition resumed at line 16, page 20: [571]

Mr. Riley: I will skip from line 21, page 20, to line 3, page 21.

(reading deposition)—

Mr. Riley: From line 23, page 21, to line 21, page 22:

At line 6, page 23:

Mr. Koch: I objected to the further answer, your Honor, because he was referring to hearsay information for the answer, which he did not have of his own knowledge.

The Court: He didn't state any facts by means of reading the contents of anything not in the record. The objection is overruled.

Mr. Koch: Your Honor, he says he saw the radio guide for the airport. That is not in the record.

The Court: He sees it, and his answer after seeing it is independent of it, so far as appears, and the objection is overruled.

Mr. Riley: I will stop at line 5, page 23, and go to line 20, page 23.

(reading deposition)—

Mr. Riley: From line 12, page 24, to line 12, page 25:

At line 8, page 26:

Mr. Koch: At this point I objected, saying that this isn't answering the question as to what type he [572] had, he either knows or doesn't know, and Mr. Riley says, "I think he has answered." I am moving that the answer be stricken as not responsive.

The Court: The objection is overruled.

Mr. Riley: I would like to leave line 8, page 26, and turn to line 12, page 27.

(reading deposition)—

Mr. Riley: To page 31, line 7.

(reading deposition)—

Mr. Riley: From line 22, page 33, to page 34, line 7:

(reading deposition)—

Mr. Riley: From line 16, page 34, to page 35, line 6:

(reading deposition)—

Mr. Riley: From line 17, page 35, to page 37, line 19:

At line 22, page 37:

Mr. Koch: I object to the question, your Honor. Objections are reserved until this time, and his physical condition is not in issue in this case.

The Court: What have you to say in response to that objection?

Mr. Riley: The relevancy of that statement and his condition at that time is to demonstrate the ordeal that our one plaintiff who did survive underwent, and to show that—— [573]

The Court: What kind of condition are you going to show, or do you seek to show?

Mr. Riley: Our offer of proof is that all these survivors were frozen, not frozen to ice as such, but were in extremely poor condition, and that they all——

The Court: Do you seek to show that this deceased and injured passengers suffered, in common with all other passengers who were similarly submerged in water, a chill to the extremities which you seek to show by the evidence?

Mr. Riley: Yes, your Honor, and it would tend to show and to substantiate Mr. Maynard's testimony to the effect of his injuries.

Mr. Koch: Your Honor, this starts out in the middle, but if we go back a page or two, other questions were asked and I objected each time to the admissibility of questions relating to the physical condition of the witness Baker. At no time does he testify what the physical condition of Maynard was, or of any of the other seven passengers. We have already had the questions and answers that show that this man was not in good condition, that he was going under water when the rowboat was bringing him to shore, that they had to put him across the boat to save him. The suffering that he underwent cannot be related to other persons whose stamina and physical condition at that time is

something that this witness' testimony [574] would not cover. The first question here refers to whether or not he was conscious. There is no question of consciousness in the case of Mr. Maynard. Mr. Maynard testified fully with respect to his own condition.

The Court: I understand the offer of this is to show circumstantial evidence supporting the plaintiffs' evidence in each case respecting the chill and the effects of chill on the two plaintiffs, one the decedent on whose behalf the suit in the Gorter case is brought, and the other the plaintiff Maynard, and that such circumstantial evidence is offered not to prove any state or condition or damage which the other people had so far as they were concerned, but merely to show a circumstance resulting generally from the same kind of conditions as to which the plaintiffs in the two suits alleged was experienced by the plaintiffs in each of those two suits, is that right?

Mr. Riley: That is correct, your Honor.

Mr. Koch: Your Honor, that is not correct.

The Court: That is my understanding of what they offered to do, and my understanding of the limit they place around the offer.

Mr. Koch: That would not be true of the deceased. It could only be true of Maynard, at the most, because there is no cause of action for pain and suffering or physical damage to the deceased. This is a wrongful death [575] action in which the statute creates a cause of action for loss of sup-

port, but not survival action for his pain and suffering.

The Court: What have you to say about that?

Mr. Riley: Well, it is true that we cannot recover—I am not sure about the item of damages as to pain and suffering, but it would tend to show the cause of his death.

The Court: The Court sustains the objection as to the plaintiff Gorter, and overrules the objection as to the plaintiff Maynard upon this condition: that the evidence is received and the Court will consider it only for the purpose of showing the conditions, insofar as it may, as circumstantial evidence, the conditions of chill and cold from which the plaintiff Maynard claims to have been damaged in part in his experience.

Mr. Koch: Your Honor, does that mean that each of the answers will be permitted on the basis——

The Court: Anything relating to that cause and effect from that cold will be heard for the limited purpose which the Court has indicated. It will not be considered by the Court for any purpose in the Gorter case and will be considered for the purpose stated by the Court, and only that purpose, in the Maynard case.

Reading of deposition resumed at line 22, page 37: [576]

At line 25, page 37:

Mr. Koch: I object to that, because it has no relation to chill or cold.

The Court: Do you offer it only as whatever connection it has with chill or cold?

Mr. Riley: How could he observe it if he wasn't conscious, your Honor, and, of course, I just want to show his general condition as tending to show what Maynard's——

The Court: You are not offering to show unconsciousness produced by anything other than the chill from the water, is that right?

Mr. Riley: Yes, your Honor, that is right.

The Court: The objection is overruled.

Reading of deposition resumed at line 25, page 37:

(reading deposition.)

Mr. Riley: I would like to leave line 3, page 38, and turn to page 40, line 1.

At line 1, page 40:

Mr. Koch: I object to that question, because that has nothing to do with the chill or cold, whether this witness was in pain some days later.

The Court: I am going to sustain that objection. There are too many if's and and's about that. He might not have had any treatment. He might have gotten cold again. This other is something that occurred at or about [577] the time of the crashing of the airplane.

Mr. Riley: I will delete the remainder of the deposition and offer——

The Court: Do you include in that omission to use the deposition all of page 40, in view of the ruling?

Mr. Riley: Yes, your Honor. I will delete the

remaining portions of the deposition as part of our case in chief and offer that which has been read into the record as part of plaintiffs' case in chief, subject to the conditions already stated. The deposition is concluded at line 10, page 42.

The Court: Isn't there more of this deposition in another volume?

Mr. Riley: Yes, your Honor. That is cross examination by the defendant, in another volume, taken two days later, on agreement with counsel.

The Court: Is there anything there which you wish to read?

Mr. Riley: I have nothing I wish to offer as part of plaintiffs' case in chief.

The Court: If, however, the defendant wishes to use the cross examination, he is entitled to read it now, if he wishes. If he wishes to reserve his final decision whether to use it or not until his own case, he may do that.

Mr. Koch: I think we should dispose of it now, your [578] Honor, as long as we are on the deposition.

(Brief discussion re reading cross examination.)

Mr. Koch: Starting at page 2, line 14, of the second volume, your Honor:

The Court: I am not going to give you time to read that kind of material. If there is something material, I will be glad to hear it as a part of this time that is being consumed.

Mr. Koch: Skip to line 7.

Reading of deposition resumed at line 7, page 6;

At line 19, page 6:

Mr. Koch: Skip the rest of page 6, down to line 4, page 7:

At line 6, page 7:

Mr. Riley: I would rather not waste time objecting, but that is the same——

The Court: I don't see what that has to do with the issues in this case. See if you cannot find some place where you are interrogating him about this cold condition and the effect on him as a circumstance bearing on the chilled condition of the water and any other subject.

Mr. Koch: Skipping to line 19, page 8: [579]

At line 7, page 9:

Mr. Riley: I will object to the question for the same reasons that counsel——

The Court: Can't you ask him the question?

Reading of deposition resumed at line 7, page 9:

At line 15, page 13:

Mr. Koch: Line 16, page 14:

(reading deposition.)

At line 15, page 16:

Mr. Koch: The question on page 17 is a long statement, quoting from another deposition, your Honor.

The Court: Two-thirds of the space are your statements preliminary to your final questions of the witness. Pick out the question you submit to the witness in each case.

Reading of deposition resumed at line 14, page 17:

At line 2, page 21:

Mr. Koch: Line 17, page 21.

(reading deposition.)

At line 11, page 23:

Mr. Koch: That is all, your Honor.

Mr. Riley: At line 2, page 21, your Honor:

(reading deposition.) [580]

At line 16, page 21:

Mr. Riley: That is all, your Honor. I do not wish to submit the redirect examination.

The Court: This deposition, so much of it as read, is received in connection with and as part of plaintiffs' case in chief, so far as it relates to each one of them separately.

Mr. Riley: I would like to call Mr. Cox.

DUDLEY S. COX

called as a witness by the plaintiffs, was sworn and testified as follows:

Direct Examination

Q. (By Mr. Riley): Will you state your name for the record, please? A. Dudley S. Cox.

Q. By whom are you employed?

A. Northwest Airlines.

Q. Were you employed by Northwest Airlines on January 19, 1952? A. I was.

Q. What was your capacity then?

A. Manager of flight operations.

Q. What was the scope of your duties? Did it encompass the entire airline? [581]

A. That is correct.

Q. What were your specific duties as manager

(Testimony of Dudley S. Cox.)

of flight operations of the defendant, Northwest Airlines?

A. As manager of flight operations, I had administrative supervision of flight personnel over the entire system.

Q. Mr. Cox, did you investigate the crash of Northwest Airlines Flight 324, which crashed at Sandspit, British Columbia, January 19, 1952?

A. I did.

Q. In the event of the crash of a commercial flight of the defendant airline, is it usual procedure for members of the corporation to be assigned to the accident investigation and to render reports to the Civil Aeronautics Board and to the company?

A. No, it isn't.

Q. Do you mean to say that in case of a crash of an aircraft today, that it isn't usual procedure for a member of the airline to be designated to attend the hearings and to assist the Civil Aeronautics people in investigating the accident?

A. It is the duty of the Civil Aeronautics Board to investigate and find the probable cause of the accident. The airline assigns people to assist the Board in their investigations. That is what I meant when I said——

Q. The individuals assigned to the Board do render written [582] reports to the Board?

A. If the Board calls on them to render written reports, they do.

Q. And copies of those reports are received by

(Testimony of Dudley S. Cox.)

the company, kept in the company's records concerning that crash, is that right?

A. I can't say. May I explain?

Q. Please do.

A. The Board, the CAB, requires the company to furnish certain material with respect to the history of the flight. That material is assembled and given to the CAB.

Q. Are copies of that kept in the records of the company?

A. I presume that they are. I am not sure who finally files them.

Q. Is it ordinary procedure for the airline to be interested enough to undertake its own investigation and ascertain whether or not they differ with the conclusions of the CAB?

A. Normally they don't, no.

Q. Are you stating that it is normal procedure for Northwest Airlines not to investigate a crash of its own aircraft?

A. Perhaps I don't understand you. We do investigate the accident with respect to our part, and our assistance to the Civil Aeronautics Board. We do not publish, nor do we expect our people to publish their findings and guessing what the probable cause is. That is not our responsibility, [583] and the corporation does not require nor order us to do that.

Q. But the corporation wants to know for itself what the cause of the accident was, isn't that correct?

(Testimony of Dudley S. Cox.)

A. They are not interested in my personal opinion, if that is what—they don't want me to advance an opinion.

The Court: You mean on the witness stand, don't you?

The Witness: No, sir.

The Court: I get that impression from what you say. If that isn't true, answer these questions frankly and responsively as they are put to you. You are not giving the Court the impression you are doing so. I ask you to undertake these questions and forget the cautions you may have surrounded yourself with before you came to the witness stand, and the over-anxiety you may have about the ability of others to get the truth about this matter, and tell all you know about it. Proceed, in response to these questions.

Q. Isn't it a fact that it is standard procedure in the event of any crash of any Northwest Airline or any other airline in the United States, for the airline to assign its own personnel to investigate the crash and to cooperate with the Civil Aeronautics Board and to render reports not only to the company but to the CAB?

A. With respect to the reports to the Board, to give the Board [584] anything they want, anything that is within their power. In the case of their own company with respect to written reports, there is a manual procedure which requires the assembling of all these reports. There is no place in the manual which directs me, as manager of flight

(Testimony of Dudley S. Cox.)

operations, to write a report to the president of the airline.

Q. No, but isn't it a fact that personnel are assigned to do this, whether it is you or anybody else?

A. Not assigned to write reports.

Q. Weren't you assigned, as manager of flight operations—weren't you ordered by the powers that be in Northwest Airlines to investigate this crash?

A. That is correct.

Q. In Plaintiffs' Exhibit 21, I will ask you to refer to that letter and peruse the contents, and ask you whether or not you rendered that report.

A. Yes, sir.

Q. And copies of this are retained in the defendant corporation records, are they not?

A. Yes, sir.

The Court: State, if you know, who signed the original of that letter?

The Witness: I signed it, sir.

Mr. Riley: I offer Plaintiffs' Exhibit 21 in evidence, if the Court please. This was the subject of [585] controversy yesterday at the time I examined Mr. Matthews, and we withheld it to this time for identification by Mr. Cox.

Mr. Koch: No objection.

The Court: It is admitted.

(Plaintiffs' Exhibit 21 for identification received in evidence.)

Q. This is a report, is it not, and to whom was it—

The Court: What do you refer to?

(Testimony of Dudley S. Cox.)

Q. Plaintiffs' Exhibit 21 was a written report by you as manager of flight operations, was it not?

Mr. Koch: I think that document speaks for itself. It is obviously a letter.

The Court: The objection as to the form of the question is sustained, with leave by proper form of question to inquire what was the nature of the subject matter dealt with in the letter.

Q. Referring to Plaintiffs' Exhibit 21, Mr. Cox, would you state what the nature and reason for the promulgation of this letter was, if you know?

A. This is a letter addressed to Mr. Leon D. Cuddeback, Civil Aeronautics Board, in Seattle, Washington, and signed by myself, dated March 28, 1952.

Q. What was the purpose of the letter?

A. It is an outline of the general procedure applicable to [586] required pilot action in the event of engine failure in flight.

Q. The exhibit states: "The term 'emergency situation,' as used in this section"—referring to Part 41, Northwest Airlines Operations Manual, Volume D, Reference 4:5:15—"may be interpreted to mean an unexpected occurrence or condition requiring immediate action to meet its danger. Such an unexpected occurrence or condition might, under certain circumstances, include an icing condition, engine or structural failure, weather condition, danger of collision, etc. It is not the intent of this regulation to require a situation or condition to become critical before such emergency authority

(Testimony of Dudley S. Cox.)

may be exercised. The pilot should make a common sense evaluation of the factors and information available to him. If, after such an evaluation, he reasonably believes that under the circumstances an emergency exists or will be created, he is permitted to exercise an emergency authority and deviate from prescribed regulations and procedures to the extent required to avoid the emergency situation."

Was that statement which I have just read in effect at the time of the crash of Flight 324 at Sandspit, British Columbia, on January 19, 1952, by the defendant airline?

A. It was my understanding it was.

Q. Is it true, as stated in that letter, as of January 19, [587] 1952, that: "An engine failure in-flight, regardless of whether or not the operating efficiency of the aircraft has been impaired, is classified in company operating procedures as an emergency situation."?

A. I cannot answer that directly. It is classified under certain conditions as an emergency, and certain conditions as a potential emergency.

Q. You have stated in your letter of March 28, 1952, that: "An engine failure in-flight, regardless of whether or not the operating efficiency of the aircraft has been impaired, is classified in company operating procedures as an emergency situation." Was that true on January 19, 1952?

A. That is correct.

(Testimony of Dudley S. Cox.)

Q. Now, page 3 of Plaintiffs' Exhibit 21, you have stated that the company regulations require that, and you have contained therein the following designated company policy for engine-out operation: "1. The captain and flight superintendent shall collaborate and determine what is the nearest suitable airport taking into consideration such factors as: a. Nature of the malfunctioning and the possible mechanical difficulties that may be encountered if flight is continued including failure of other engines. b. Altitude, aircraft weight and usable fuel at time of stoppage. c. Weather conditions and terrain enroute and at possible landing points. d. Air traffic congestion [588] enroute and at various available airports. e. Pilot's familiarity with the airport and surrounding terrain. f. Nature of failure insofar as related to airport safety facilities such as crash and fire-fighting equipment." Was that the company policy which was in effect—I mean by "company," the defendant, Northwest Airlines company policy—with respect to engine-out operations which was in effect on January 19, 1952? A. That is correct.

Q. It also states: "Upon reaching an agreement with the captain as to which is the nearest suitable airport, the flight superintendent shall clear the flight to that airport."

Was that policy in effect by defendant Northwest Airlines on January 19, 1952?

A. May I deviate just a moment to explain?

The Court: Can you answer it, and then, if you

(Testimony of Dudley S. Cox.)

need to, make an explanation in order to be sure that your answer is full, true and correct.

A. It isn't necessary that the flight superintendent clear the pilot to make a landing if the pilot exercises his emergency authority as outlined on page 1 of that letter.

Q. But it is necessary for the captain and the flight superintendent to collaborate and determine which is the most suitable airport? [589]

A. Not unless the pilot asks that. If the pilot exercises his emergency authority, he is the sole judge of that.

Q. That isn't what this says, is it, Plaintiffs' Exhibit 21? A. Page 1 says——

Q. But refer to page 3.

A. Page 3 is the company policy, all other things being equal.

Q. Do you know who the flight superintendent was at Seattle on January 19, 1952?

A. That was Mr. Smith.

Q. Mr. Smith, who testified here earlier?

A. That is correct.

Q. I will ask you to refer to the signature contained on page 5 of that document, and state, if you know, whose signature that is.

A. That is my signature.

Q. What is the nature of the document which is identified as Plaintiffs' Exhibit 28?

A. Plaintiffs' Exhibit 28 is a statement concerning the accident, MATS Flight 324, January 17th.

(Testimony of Dudley S. Cox.)

Q. Were you requested to make that statement?

A. No, I wasn't. I made the statement of my own volition.

Q. And did you make it in your capacity as manager for flight operations of the defendant, Northwest Airlines, at the time it was rendered?

A. That is correct. I made it in Vancouver.

Q. When was that statement rendered?

A. The Department of Transport held a hearing in Vancouver concerning this accident, and I drafted this statement to submit to the Department of Transport, to ask that they enter in their proceedings there. They did not do so.

Q. Was this document also submitted to the CAB and to the company?

A. Yes, I presented it to the CAB.

The Court: Did they accept it?

The Witness: I think so.

The Court: What the Court means is, did they take any action that indicated to you that they did not accept it as a report from you?

The Witness: No, sir, not to my knowledge.

Q. Would you state when you rendered this report?

A. I don't remember the exact date. It was in Vancouver, sometime subsequent to the accident.

Q. First of all, what was the nature of the statement or report?

A. It is a statement of the facts, as I saw them, surrounding this accident.

The Court: In the light of what you had learned

(Testimony of Dudley S. Cox.)

about such investigations and reports as had come to your attention?

The Witness: Yes, sir, in Sandspit.

Mr. Riley: I will offer Plaintiffs' Exhibit 28 in [591] evidence as an additional report made by Mr. Cox in his capacity as manager of flight operations.

Mr. Koch: This report is not admissible, because it is a report made to the Civil Aeronautics Board. He can be questioned with respect to material, the subject matter covered by that report, but the report itself is barred by the statute. The statute encourages——

The Court: I do not know whether that is true or not.

Mr. Koch: This is an exhibit before the Civil Aeronautics Board, and counsel is attempting to introduce a copy of the record before the Civil Aeronautics Board to conduct an investigation to determine the facts and circumstances surrounding this accident.

The Court: What is the citation?

Mr. Koch: 49 USCA, Sec. 581.

The Court: "No part of any report or reports of the former Air Safety Board or the Civil Aeronautics Board relating to any accident, or the investigation thereof, shall be admitted as evidence or used in any suit * * *"

Mr. Koch: Your Honor, this is part of the investigation.

(Testimony of Dudley S. Cox.)

The Court: Does that not relate to their records?

Mr. Koch: It relates to the filings made to that Board.

The Court: Was this a part of that Board's files?

Mr. Koch: Yes. It was submitted at their request [592] by Northwest Airlines to the Civil Aeronautics Board.

Mr. Riley: This is not a report of the Civil Aeronautics Board. This is a report of Mr. Cox, who is the manager of flight operations of the defendant airline.

The Court: I understand that this came from Northwest files, or from this witness' files, or am I incorrect in that?

Mr. Riley: If your Honor please, this particular document did not come from Northwest. I know they have it. It is a report made by Mr. Cox. I got this copy from the Civil Aeronautics Board file, but it is not a report of or by the CAB or any of its agents. This is a report of Mr. Cox, manager of flight operations of the defendant airline.

The Court: Is the source of this thing, so far as you are concerned, the files of the Board or Authority?

Mr. Riley: Mr. Cox is the source, your Honor.

The Court: You will have to point out some authority. I do not know whether there is a distinction between all copies of this man's report now in CAB files, or whether it also includes copies thereof which are not in his hands.

(Testimony of Dudley S. Cox.)

Mr. Koch: Your Honor, this particular document was obtained from the Civil Aeronautics Board. It is part of the filings in connection with the investigation of this accident. The CAB itself is charged with the investigation of air accidents.

The Court: Did this thing come from that Board's files?

Mr. Koch: Mr. Riley just said it did.

The Court: The objection is sustained.

Mr. Riley: Your Honor, my statement is that the statute only precludes the admission of reports and records of the Civil Aeronautics Board and made by their agents.

The Court: I will have to overrule you on that contention, Mr. Riley. I feel compelled to sustain the objection because the statute says the Court must. In effect, that is what the statute says.

Mr. Riley: At this time, I call your Honor's attention to my previous motion requesting the Court to strike portions of the defendant's answer and to impose costs for failure to obey lawful subpoena duces tecum. The first time this subpoena duces tecum was served was on February 19, on the defendant, Mr. Peterson.

The Court: I think it would be more in order from the standpoint of appropriate time to take up the subject at the end of your case in chief than it is now, unless that is what you have now reached.

Mr. Riley: Very well, your Honor. Just briefly, I subpoenaed reports of the company investigation board or agents and the conclusions of such board

(Testimony of Dudley S. Cox.)

or agents, and also all the records and reports of Northwest Airlines [594] concerning Flight 324. I have never been given them. Your Honor continued our motion to strike and to impose costs, etc., on Mr. Karr's statement these records would be delivered. I think they have not complied with that, and I will renew the motion later and proceed with other matters.

The Court: You may do that.

Q. You visited the scene of the crash of the aircraft in the course of your investigation several times, is that correct? A. That is correct.

(Photographs marked Plaintiffs' Exhibit 29 for identification.)

Q. Do you know whether any bodies were recovered from inside the fuselage of the aircraft?

A. No, sir, I don't know.

Q. How soon did you reach the scene of the crash?

A. I think it was about 18 to 24 hours after the accident. I couldn't be exact.

Q. Who is Mr. Paul Sanders?

A. Mr. Sanders is supervisor of line maintenance, I believe, for Northwest Airlines.

Q. Do you know whether or not he was assigned and requested to testify and to assist the CAB in its investigation?

A. I can't say directly. I am sure he was. He was there on [595] the scene of the accident.

Q. Was he there with you at the time of the investigation you conducted?

(Testimony of Dudley S. Cox.)

A. Yes, sir. He is in a different department than I.

Mr. Riley: May the record show I am withdrawing from counsel's file a letter dated April 10, 1952, to Mr. Matthews from Mr. Paul Sanders, and ask it be marked for identification.

The Court: Do you mean withdrawing from the files produced by counsel for defendant and left on the counsel table in the courtroom?

Mr. Riley: Yes, your Honor.

(Letter of April 10, 1952, marked Plaintiffs' Exhibit 30 for identification.)

Q. Showing you what has been marked Exhibit 29 for identification, have you seen those photographs before?

A. Yes, sir, I have seen those photographs before. In general, I think they are enlarged, but I believe these are the same photographs I have examined before.

Q. Were you present when the photographs were taken? A. No, sir.

Q. Were they taken by personnel of Northwest Airlines? A. I was told so.

Q. Do you know approximately when they were taken?

A. I was informed they were taken in June, 1952. [596]

Q. And what did the pictures show?

A. Well, the first picture shows Captain Leonard, Northwest Airlines.

(Testimony of Dudley S. Cox.)

The Court: In what kind of surroundings or setting?

The Witness: Standing between engines 3 and 4 on the wing panel of an airplane in the water.

The Court: Are they in or out of water?

The Witness: The portions of airplane are in the water.

Q. What airplane?

A. I was told that this was the airplane at Sandspit.

Mr. Koch: I object.

Q. As a matter of fact——

Mr. Koch: The information about when the photographs were taken and by whom they were taken, of what it was taken, this witness has no personal knowledge. He is giving some hearsay information he has received.

The Court: I am not too certain about what you observed concerning the information of this witness. I believe I will leave it to further interrogation.

Q. As a matter of fact, you rendered a report and submitted those photographs with the report, isn't that right?

A. I believe that is correct. This material was assembled and forwarded to Washington.

Q. As a part of the continuing company investigation of the crash of Flight 324 at Sandspit? [597]

A. Yes, I believe that is correct.

The Court: Who forwarded it, if you know, with reference to whether or not it was forwarded

(Testimony of Dudley S. Cox.)

by anyone on behalf of Northwest Orient Airlines?

The Witness: I am reasonably sure that came from my office. I can't recall specifically the date, but I am reasonably sure that came from my office.

Mr. Riley: I offer in evidence Exhibit 29.

Mr. Koch: It is objectionable for the same reason.

The Court: The Section 581 objection?

Mr. Koch: Yes, Your Honor, on file with the Civil Aeronautics Board. The testimony has been that M. Sanders sent these pictures to the CAB.

The Court: Mr. Riley, I will have to advise you that what I approve of your doing in the case of a 581 objected-to exhibit is that you identify and make a record on your offer of it, and then, unless there is some exception to it from the application of the rule laid down in this Section 581, I say to you I do not wish you to press the matter.

Mr. Riley: I offer to show that those records did not come from the Civil Aeronautics Board. They were taken from counsel table, produced in response to a subpoena duces tecum. I subpoenaed those photographs, which were produced to me in Mr. Koch's office prior to trial. [598]

Mr. Koch: Now we are back to the material Mr. Riley had transcribed by the court reporter at the beginning of the trial.

(Further argument between counsel.)

The Court: The Court wishes to ask this witness one or two questions.

(Testimony of Dudley S. Cox.)

The Court: Mr. Cox, did you personally direct any person to obtain these photographs?

The Witness: Yes, sir.

The Court: I mean the originals.

The Witness: Your Honor, I asked that they go up to Sandspit to attempt to get to the wreckage, and, if possible, obtain photographs.

The Court: What persons?

The Witness: Mr. Helm.

The Court: Whose employee is he?

The Witness: He was Northwest Airlines' chief pilot, at that time, based in Seattle.

The Court: Did you ask anybody else to go with him?

The Witness: I suggested to Mr. Helm he take a representative of the Airline Pilots' Association.

The Court: Did he or did he not?

The Witness: He did.

The Court: Do you know what it was that caused you to ask him to do that? [599]

The Witness: There was an extremely low tide in June, or approximately in June of that summer, and it was thought that we could get to the remains of the wreckage.

The Court: To get some more information, other than what you had?

The Witness: That is correct.

The Court: Did you get that before you were asked by the Civil Aeronautics Board to make any report of any investigation to or for them?

(Testimony of Dudley S. Cox.)

The Witness: Your Honor, we told the Civil Aeronautics Board that we would go up at any low tide that we could to get information which we would submit to them. The CAB at its hearing in Seattle, at the conclusion the hearing officer said that the hearing would—I believe the words were would remain permanently open for the admission of other material if it was available.

The Court: Did you make any move to get this material before the Civil Aeronautics Board asked that it be obtained, if they did ask that it be obtained? I do not understand from what you have said whether they specifically asked you to obtain pictures or not, or what it was that stimulated that move and thought.

The Witness: Your Honor, I don't think they specifically asked. In discussing the matter, we said we would do that. They agreed that would be a good thing if [600] we could do that.

The Court: I do not understand whose idea it was to get them, to get the information at the place where you got these pictures. That is what I do not know. I do not know whether it was your idea formed before the Civil Aeronautics Board investigation was brought to your attention or before any questions were asked of you, or when it was. That is what I do not understand, when it was with reference to the beginning of the Civil Aeronautics Board investigation and the plans therefor, that you determined that you would undertake to get these photographs.

(Testimony of Dudley S. Cox.)

The Witness: Well, Your Honor, at the scene of the accident, immediately, two or three days afterward, there was a low tide at night and we did attempt to walk to the wreckage at that point. The CAB did not go out. They considered it too hazardous. Some of us did go out, tried to walk.

The Court: Within how many days of the occurrence of the accident was that?

The Witness: Within three days, I think.

The Court: You tried to get photographs at that time?

The Witness: It was at night. We attempted to get on board the wreckage. We could not do so.

The Court: When was the first time you said anything about trying to get photographs, approximately? [601]

The Witness: It was during the time we were at Sandspit, within a week.

The Court: In the month of January?

The Witness: Yes, sir.

The Court: Are there any further questions you wish to ask of this witness?

Mr. Riley: No, Your Honor. I wanted to cite the case of *Tansey v. Transcontinental & Western Air*, 97 Federal Supplement 458.

(Further argument between counsel.)

The Court: We have used a great deal of time. I am going to have to rule. The ruling is to overrule the objection and permit the reception of this as being a company record and not a Civil Aeronautics

(Testimony of Dudley S. Cox.)

Board record. I am not going to look at these pictures. I glanced at them a moment ago for the purpose of seeing the background of water, and all I could tell you that is in the pictures is water. I know there are some objects, but I cannot name any objects in the pictures. I am not going to look at those pictures until you have a chance tomorrow to look for some more law on this subject. It would seem to me if I had a copy of the Civil Aeronautics Board record which is a part of my file, that that would not be the file that that statute is talking about, and I cannot believe that it is unless you show me some authority that it does apply [602] to everybody else's files if there are copies of the reports and statements that were sent by the person making the report or statement to the Civil Aeronautics Board, especially if they were, as in a case like this, a part of the company's records. That is what I believe this really is.

It is true that it is also a copy of an original that was intended for and was sent to the Civil Aeronautics Board in the course of the investigation by the Civil Aeronautics Board, but, as I say to you, I am not going to look at these pictures again until about the close of this case, giving to counsel further time to see if there are any more cases on this subject. Plaintiffs' Exhibit 29 is now admitted, subject to that condition.

(Plaintiffs' Exhibit 29 for identification received in evidence.)

(Testimony of Dudley S. Cox.)

Q. The exhibit you have in your hand, Plaintiffs' Exhibit 30 for identification, I notice it bears your name on the lower lefthand corner. Do you recall having received that communication?

A. Yes, sir.

Q. By whom was the communication promulgated?

A. From Mr. Sanders.

Q. What does it purport to show?

A. It is a summary of the oil consumption for Engine [603] No. 701,355, which was installed in the No. 1 position on aircraft 601, N45342.

Q. Does it show the amount of oil consumed by Flight 324 of the 17th between Shemya and Elmen-dorf, January 17, 18, 19, 1952?

A. Yes, it does.

Q. From where would that information be obtained?

A. It would be obtained from records, I assume at Anchorage, which would be forwarded to St. Paul after they were compiled.

The Court: What is the nature of the information on that exhibit, Mr. Cox, if you know?

The Witness: The consumption of oil in this particular aircraft engine.

The Court: What kind of document is it? Is it a study, a report?

The Witness: It is a report, a record of the No. 1 engine oil consumption, gallons per hour.

Mr. Riley: I offer Plaintiffs' Exhibit 30 in evidence at this time, if the Court please, on the basis of the witness' identification of the document.

(Testimony of Dudley S. Cox.)

Mr. Koch: I have no objection.

The Court: Admitted. [604]

(Plaintiffs' Exhibit 30 for identification received in evidence.)

Mr. Riley: If the Court please, I call attention briefly to the next to the last line on page 2 of that document, which indicates, as Mr. Cox has testified, the amount of oil used in the flight of Flight 324 between Shemya and Elmendorf, and it shows ten gallons of oil were used. My purpose in submitting this at this time is to call Your Honor's attention to the previous testimony of Mr. Matthews, who indicated, if that much oil had been used in flight, it would have been his duty to have inspected the aircraft prior to releasing it from Anchorage.

Q. You are a pilot? A. That is correct.

Q. You have had considerable flight experience?

A. Yes.

Q. How long have you been flying?

A. About 25 years.

Q. And you have approximately how many hours? A. 15,000.

Q. Is that all commercial experience?

A. Some of it was obtained in the Army and the Air Force.

Q. Directing your attention to the month of January, 1952, and assuming a flight of a DC-4 aircraft operated by Northwest Airlines, generally described as Flight 324, which departed Anchorage approximately 10 P.M. at night bound for Seattle

(Testimony of Dudley S. Cox.)

with a load of forty passengers and a [605] crew of three consisting of the pilot, co-pilot and stewardess; and assuming further that at a point approximately due west of Sitka, Alaska, or midway in the flight to Seattle, the No. 1 engine on the left side of the aircraft was secured and the propeller feathered; and assuming further that the weather at the point of destination, which was Seattle, the Seattle area was clear and that landing conditions at the destination were normal, and that at the time of feathering of the engine the aircraft was approximately three and a half hours from Anchorage; and assuming further that the time to Sandspit would be approximately one and a half hours; and assuming that the airport at Sandspit had a runway approximately 5,100 feet in length and that the airport was situated on water; and assuming that the weather conditions at Sandspit were reported to have been 1200 feet broken overcast with visibility reduced and light snow showers to one mile; and assuming further that Sandspit airport was without normal precautionary safety equipment such as fire equipment or rescue equipment; and assuming further that either the pilot or person in charge of the operation of the aircraft decided to make an unscheduled landing at Sandspit: would you say that the company regulations and instructions relative to the operation of the aircraft require the pilot or another member of the [606] crew to advise the passengers that they were making an unscheduled landing?

(Testimony of Dudley S. Cox.)

A. Yes, I would say so, that the passengers should be advised that they are making an unscheduled landing.

Q. You have landed at Sandspit?

A. Yes.

Q. Are you familiar with the length of the runway as it existed in 1952? A. Yes.

Q. Approximately how long is that runway?

A. I judge—I would have to refer to records—I judge about 5,000, 4,500 to 5,000.

The Court: Was that room enough to land if the pilot could have seen what he was doing?

The Witness: Yes, sir.

Q. Do you know whether in January 19, 1952, there was any crash equipment located at the field, or any personnel to operate it?

A. There was none.

Q. And there were no personnel to operate it?

A. No.

Q. What personnel were situated at the airport, if any?

A. There were communications personnel of the Department of Transport.

Q. Are you familiar with the weather at the time of the crash [607] of Flight 324 at Sandspit, British Columbia?

A. Yes, sir, generally familiar.

Q. Would you state what you understand the weather to have been at that time on the morning of January 19, 1952?

(Testimony of Dudley S. Cox.)

A. As I recall, the weather was variable, with the ceiling and visibility varying because of instability, squalls, snow squalls in the area, the visibility going up and down and briefly restricted under snow squall conditions. I think the ceiling was around 1,500 feet, and the visibility three to five miles, or something of that nature, and occasionally restricted to one mile, to the best of my recollection.

Q. Do you recall what the weather en route to Seattle was from Sandspit?

A. Generally overcast for the entire route, with the weather at Seattle, ceiling of, I think 2,000 or 2,500 feet or something like that, and lowering slightly at Portland, and I believe somewhat higher at the south end of Vancouver Island.

Q. Do you recall what the reported visibility was on the morning of January 19, 1952, in the Seattle area?

A. I don't recall that, no, sir. I think it was good, but I can't recall specifically what the reading was.

Q. Assuming the same facts just stated in the hypothetical question, would your regulations require notice to the [608] passengers by any member of the crew of the present location or use of life rafts and life jackets allegedly aboard the aircraft?

A. Assuming this fact as you described it a moment ago?

Q. Yes. A. Not necessarily, no, sir.

Q. Is it your testimony that at no point in the

(Testimony of Dudley S. Cox.)

flight should the passengers be advised as to the location of life rafts and life jackets?

A. Well, I misunderstood you. I thought you were assuming this fact that they had lost an engine. I don't quite understand. Do you wish me to assume this particular fact, they lost an engine over Sitka, and whether the crew should advise the passengers at that point of the emergency equipment, or at any time after departure from Anchorage or before Anchorage?

Q. I will state first, assuming the same hypothetical question, at the time of the loss of the engine, should they be informed as to the location of life rafts and life jackets?

A. Not necessarily, no, sir.

Q. Under what circumstances should they be informed?

A. When the captain feels that there is an actual need for such.

Q. Shouldn't the passengers be informed immediately after takeoff, even before an emergency, of the location of [609] life rafts and life jackets?

A. That is correct. The passengers should be briefed before an over water flight.

Q. Would that be true in January, 1952?

A. That is correct.

Q. And if this wasn't accomplished, then somebody did not accomplish their assigned function, would that be true?

A. If it wasn't accomplished, it should have been.

(Testimony of Dudley S. Cox.)

Q. Did Northwest Airlines in January, 1952, have any regulations covering the conduct and duties of crew members with respect to the safety and rescue of passengers on aircraft flights over water carrying passengers?

A. The safety and rescue?

Q. Did they have any regulations covering the conduct and duties of crew members with regard to the safety and rescue of passengers on aircraft flights carrying passengers over water?

A. The company had safety regulations concerning the passengers and the care of passengers. The rescue of passengers, in the event that rescue is necessary, our instructions are general in that respect, assisting them to board life rafts and that sort of thing, but it doesn't—I don't think our instructions are specific to the point of the actual rescue, because it is beyond the control of the crew under those circumstances. [610]

Q. Were you informed what the temperature of the water was at Sandspit, British Columbia, January 19, 1952?

A. I believe about 38 to 42 degrees. I can't recall exactly.

Q. Assuming a situation in January 1952 whereby a DC-4 aircraft generally described as a forty-passenger aircraft carrying life jackets and life rafts, with forty passengers aboard and three crew members consisting of the pilot, co-pilot and stewardess, wherein the aircraft made an unsuccessful attempt

(Testimony of Dudley S. Cox.)

to land at Sandspit, British Columbia, and crashed into the waters adjacent to the Sandspit airport at a distance of approximately one-half to three-quarters of a mile from shore; assuming further that the aircraft after such crash remained substantially intact; and assuming further that the aircraft remained afloat for a period of from two to five minutes; and assuming further that the water outside the aircraft did not fill the craft for approximately five minutes; and assuming further that the passengers on the aircraft were able to leave the aircraft in approximately two minutes; and assume that the water into which the plane had crashed was approximately twenty feet deep; and assuming further that the water was extremely cold; and assume further that the aircraft crashed at approximately 1:40 A.M. Pacific Standard Time, in total darkness, and that as a result of the crash the lights on the plane were out and that no emergency lighting [611] was available: would Northwest Airlines operating procedures at that time have included any instructions relative to the duties of the crew to advise the passengers as to how to launch the life rafts?

Mr. Koch: Your Honor, I object to this hypothetical question. It assumes fact after fact that is not in evidence, and in many instances it assumes facts erroneously where the evidence is otherwise.

Mr. Riley: I would like Mr. Koch to point out one.

Mr. Koch: If we could go over it, I would try to.

(Testimony of Dudley S. Cox.)

The Court: Is there something else you wish to point out?

Mr. Koch: Simply that it states facts not in evidence, and it is such a long, complicated hypothetical question and assumes so many facts, I would imagine a witness would require time to see it and read it and study it if the Court rules that it is a proper question and it does set forth facts that are in evidence.

The Court: I think the objection should be overruled, and I believe counsel has a right to leave it to the witness, if he can deal with the question as counsel invites him to. Counsel should in good faith state no condition in it that is not already in the evidence or which he has any doubt about ever being in the evidence. With that qualification, the objection is overruled. Do [612] you recall the statement of the question sufficiently to entertain the question phase of it, Mr. Cox?

The Witness: Yes.

The Court: Did you ask him if he had an opinion?

Mr. Riley: I asked him whether or not Northwest Airlines at that time had any instructions relating to the duties of the aircraft crew which would require them to advise passengers as to how to launch the life rafts.

The Court: Under the conditions stated?

Mr. Riley: Under the conditions stated.

The Court: Do you understand the question?

(Testimony of Dudley S. Cox.)

The Witness: Yes, sir.

The Court: Then you may answer it, if you know the answer.

A. There is no specific requirement under those conditions. There is a general requirement on the service of the crew members that they devote themselves to the passengers, as on a passenger liner. In other words, the passenger comes first, to do all you can for his safety and even at the risk of your own life. That is sort of customary in the service of transportation people.

There is one other specific instruction that I could refer to which is in the nature of aircraft over water carrying limited crews, where the instructions to the personnel on the airplane are that they must enlist [613] passenger aid for the launching of certain life rafts, and those are the only instances that I can recall that would be pertinent to your question.

Q. This aircraft was substantially intact, you have been able to determine that as a result of your own investigation? Was it not substantially intact?

A. It appeared so. We observed the top of the fuselage. The tail section was torn off, we thought through a towing operation, but we could see the top of the fuselage and the tops of the wings under the water. It did appear from that view substantially intact.

Q. From your discussions with survivors and other personnel, it was reported that the aircraft

(Testimony of Dudley S. Cox.)

was intact at the time it landed in the water, isn't that correct?

Mr. Koch: I object to his testifying from what survivors told him, as hearsay.

Mr. Riley: I don't believe it should be hearsay when the defendant company was the one that interviewed them and did the investigation, and we do have Mr. Cox, manager of operations for the entire airline.

The Court: Insofar as it appears to state the words, I think the objection should be sustained. You can ask him what he learned the fact to be, if he came to any conclusion as to what the fact was about these conditions.

Q. What other facts did you learn in the course of your [614] investigation which related to what the condition of the aircraft was at the time it crashed in the water?

A. From our observations and discussions with the—I didn't directly ask the survivors myself. I was present.

The Court: It is just a question of what you learned.

A. I learned that the exterior of the airplane was substantially intact, that the interior was—some of the structure inside, the seats, some of them were torn loose and there was some material and supplies carried on the inside, passenger supplies, were floating around and were jarred loose, and that's about all. There was quite a bit of confusion inside,

(Testimony of Dudley S. Cox.)

and some debris. To what extent, we couldn't say.

The Court: Did you or did you not learn that any passengers were physically injured by reason of anything which occurred from the impact resulting from the landing on his body or person?

The Witness: We did not learn directly. We inquired time after time of that. We did not learn that anyone directly died as a result of that water landing. We could not know for sure.

The Court: I mean from personal injuries that come from a blow, an external blow or external force or from the bodily rebound reaction from the application of such force. Did you learn of any personal injuries from that [615] type of a cause of injury?

The Witness: Personal injuries?

The Court: Traumatic is the word I am trying to think of. Did you learn if any passengers sustained any traumatic injuries caused by a blow on their bodies, or the rebound of the body from any sudden stopping or jerking or impact against the body?

The Witness: No, sir, we did not. The best we found was a few minor bruises, but we did not learn of any such.

Q. If the ditching pamphlets and literature which were allegedly stowed aboard the aircraft required the crew to instruct the passengers as to the location of the life jackets, would you state that the crew members, whoever they were aboard the

(Testimony of Dudley S. Cox.)

aircraft, would have a duty to see that the passengers were instructed as to the location of the life jackets?

A. The ditching folder itself was in a tri-language pamphlet describing the location of life vests and flotation gear. The duties of the crew were to see that each passenger had the pamphlet in his hand, to answer their questions as best he could, if he were an American, and to demonstrate if he were a foreigner and couldn't speak the language. With the cabin attendant and the ditching folders, that was the way that was accomplished. [616]

Q. If the ditching pamphlet stated as to life vests, "Life vests are located in overhead racks or under your seat. The purser will instruct you in which of the two locations your life belt may be reached shortly after departure", would you say the crew, purser, stewardess, co-pilot or pilot, would be under an obligation to instruct the passengers aboard the aircraft as to the location of vests in the particular aircraft which was flying?

A. Yes.

Q. If the life rafts were located in a different portion of the cabin than the ditching literature located in the aircraft indicated that the life rafts were located, wouldn't it be the duty of someone to inform the passengers of the difference in location?

A. Well, in the same general area, that is correct. In other words, they wouldn't be forward in the airplane. If they were forward, they should tell

(Testimony of Dudley S. Cox.)

them they are forward, or it should be described. If they are in the same general area, same section of the airplane——

Q. If the life rafts were located aft of the main cabin door behind a curtain, rather than forward of the main cabin door behind the last two seats on the left side of the aircraft, would you say that would impose a duty on the crew to instruct the passengers that the life rafts were located in a different place than shown in the ditching [617] pamphlets? A. If they were——

Q. Just answer the question yes or no.

Mr. Koch: I think the witness should be entitled to give an answer to the question.

The Court: I think he has a right to restrict him. Read the question.

(Last question read by reporter.)

The Court: Would you or would you not say? You should at least give him an alternative.

Mr. Riley: Yes, Your Honor. I would like to modify the question.

The Court: The objection to it, insofar as that is concerned, is sustained, with leave to put it in the other form, "would you or would you not so state."

Q. Would you or would you not state that there was a duty of the crew aboard the aircraft to so instruct passengers as to the different locations of life rafts, as mentioned in my last question?

A. As you outlined, I would not say. I don't

(Testimony of Dudley S. Cox.)

know whether that is affirmative or negative. I would not say it was the responsibility, if they are in the same general location.

Q. Are you saying that if life rafts are placed behind a curtain aft of the main cabin door, rather than forward of the main cabin door behind the last two seats on the left [618] side, are you saying they are in same area?

A. That is correct.

Q. And that it wouldn't impose a duty on the crew to instruct as to the location of the life rafts?

A. That is correct.

Mr. Koch: This is argumentative. He has answered it.

The Court: The witness has intelligently done so. The objection is overruled.

Q. Assuming a situation in January, 1952, whereby a DC-4 aircraft loaded with forty passengers and a crew of three, consisting of a pilot, co-pilot and stewardess, an aircraft with life vests and life rafts located somewhere within it, and the aircraft made an unsuccessful attempt to land at Sandspit airport with one engine feathered, and thereafter crashed into the water adjacent to the Sandspit airport at a distance of approximately one-half to three-quarters of a mile from shore; and assuming further that the aircraft after such crash remained substantially intact; and assuming further that the aircraft remained afloat for a period of time approximately two to five minutes; and assuming fur-

(Testimony of Dudley S. Cox.)

ther that the water from outside the aircraft did not fill the cabin for approximately five minutes; and assuming further that the passengers on the aircraft were able to leave the aircraft in approximately two minutes; and that the water was approximately twenty [619] feet deep and was extremely cold; and that at the time the aircraft landed in the water it was 1:40 A.M. Pacific Standard Time, in darkness; that as a result of the crash the lights on the plane went out: and in the absence of regulations, do you have an opinion as to the ordinary duties of a crew of ordinary prudence of an aircraft under such conditions as to whether or not passengers should be assisted in launching life rafts? A. Yes.

Q. What is that opinion?

Mr. Koch: Just a moment. I must object, and now I have jotted down the points where the evidence is either not in the record or in dispute. There is no evidence with respect to whether or not there was lighting after the regular interior lights went out or not, whether any emergency lighting was put on. In the second place, I don't recall any testimony as to how long it took the plane to sink. The testimony that it took two to five minutes to fill up with water, I don't know where that comes from. It is a question of how soon it filled up, how soon it became a foot, two feet, deep. There has been testimony that the seats were shaken loose from the mooring and that could impair the ability to launch

(Testimony of Dudley S. Cox.)

the rafts. I think there are so many conditions that are not stated in the question itself that the answer could be highly misleading. [620]

The Court: The objection is overruled.

Q. What is your opinion?

A. I have no specific—I would generally say do all you possibly can to launch the rafts, to assist the passengers to don the life vests, to do everything you physically can. That is what I would expect of any crew, myself included.

Q. Mr. Cox, was any other agency in control of the aircraft designated Flight 324 of January 19, 1952?

A. Was any other agency in control?

Q. Other than Northwest Airlines.

A. It was under the jurisdiction of the military, MATS, Military Air Transport Service.

Q. What jurisdiction were they under?

A. They provided certain services, certain services in conjunction with the contract that Northwest had with MATS.

Q. You were paid for each of these flights?

A. Paid by the mile, yes, paid each flight.

Q. As a matter of fact, wasn't the airline paid by the round trip?

A. I couldn't say for sure. I think that is true.

Q. The airline was operating under a basic contract with the United States Air Force?

A. We were the prime contractors for the group of carriers, and we subcontracted to the other airlines, but we were the prime contractors with the military. [621]

(Testimony of Dudley S. Cox.)

Q. Did they provide you from time to time with requests for transportation or for an aircraft for a particular flight?

A. Well, sir, that schedule was set up departing at certain times from Seattle, return flight at certain times from Haneda.

Q. Was the schedule based on round trip from Seattle to Japan and return?

A. That is correct.

Q. Was that the manner in which Flight 324 was operated?

A. Except for operational delays, that is correct.

Q. Did you pay the crew members for Northwest Airlines; in other words, were they in the direct employment of Northwest Airlines?

A. That is correct.

Q. Did the United States Air Force own the aircraft? A. No, they did not.

Q. Did they control your departure times after the aircraft was en route?

A. I think they did then.

The Court: Speaking of Northwest?

Q. Speaking of Northwest, and referring specifically to Flight 324.

A. Perhaps I didn't understand. Does Northwest have the ability to deviate the airplane?

The Court: Did it on this flight control the flight [622] the same as if it had owned the plane?

The Witness: Yes, they had the right to deviate the airplane, for a reason.

(Testimony of Dudley S. Cox.)

The Court: Is it true or not true that the defendant airline obtained the exclusive right to use this airplane for this flight for the purpose of the defendant airline?

The Witness: That is true.

Mr. Riley: May the record show I am withdrawing documents designated as Flight Operations Manual, by Northwest Airlines, from the records on counsel table which were delivered here earlier by defendant's counsel, and I request that these now be marked for identification.

(Flight Operations Manual marked Plaintiffs' Exhibit 31 for identification.)

Q. While these documents are being marked for identification, can you tell us under what authority the Northwest Airlines operations manual is promulgated by Northwest Airlines?

A. Under what authority? It is under authority of the Civil Aeronautics Administration and the certificate under which we operate.

Q. Are you required by Civil Air Regulations and by law to promulgate operations manuals and aircraft maintenance manuals which apply to your operation? A. That is correct.

Q. Are these documents approved by the Civil Aeronautics Board? [623]

A. Yes, that is correct.

Q. And after having been approved, do these documents have the same effect as Civil Air Regulations? A. Yes, that is correct.

Q. And as such, violation of a company-

(Testimony of Dudley S. Cox.)

established policy which has been approved by the Civil Aeronautics Board would then be the same as a violation of a Civil Air rule or regulation, isn't that correct?

Mr. Koch: I object to that question. It calls——

The Court: Overruled. If this witness knows, he may answer.

A. In the manuals are a number of instructions to company personnel that have no origin in the Civil Air regulations and violation of those articles are not necessarily a violation of the Civil Air regulations. Those that are written explaining or amplifying Civil Air regulations, those are considered a violation of Civil Air regulations just as the specific one.

The Court: If not complied with, constitute the same seriousness or lack of it which a like observance or lack of observance would be as to the regulation, is that right?

The Witness: Yes, sir.

Q. As to an air carrier, using the defendant airline as an example, operating in 1952 in overseas operations, what part of the Civil Air regulations would apply to your [624] operations?

A. What part? It would be Part 40 and Part 41.

Mr. Riley: May I state for the record I am withdrawing a document from counsel table brought here by counsel, stated to be Part 41, Certification and Operation Rules for Scheduled Air Carrier Operations Outside the Continental Limits of the

(Testimony of Dudley S. Cox.)

United States, which was produced by counsel in response to a subpoena on file with the clerk.

(Part 41, Civil Air Regulations, marked Plaintiffs' Exhibit 33 for identification.)

(Brief discussion between counsel re Plaintiffs' Exhibit 31 for identification.)

The Court: You may inquire concerning Plaintiffs' Exhibit 31 for identification.

Q. Referring to Plaintiffs' Exhibit 31, are each of the pages attached thereto portions of the Northwest Airlines operations manual or cabin service manual or maintenance manuals?

A. I see no maintenance manual here. I see the others.

Q. Would you indicate what categories, what subjects are covered in those pages attached to what has been marked Plaintiffs' Exhibit 31?

A. That deals with the company procedures, regulations, practices and policies; survival at sea; ditching procedures; general ditching principles, all aircraft; [625] an instrument approach procedure for Sandspit; survival at sea; ocean station vessels, and that's about all.

The Court: On the date of January 19, 1952, did they or did they not, each and all of them, apply to the operations by the defendant airline of its flights?

The Witness: To the best of my knowledge, they did.

Q. Each of the documents contains the effective date and the date was in effect, is that correct?

(Testimony of Dudley S. Cox.)

A. Yes, that is correct.

Mr. Riley: I offer Plaintiffs' Exhibit 31 in evidence. I think each of the categories, the topics covered by the pages in the exhibit, are clearly relevant to the issues here.

The Court: What does the witness call that group of material, flight operations manual? Is that what it is, or something else?

The Witness: Flight operations manual and cabin service manual, instructions to personnel.

The Court: Is there any objection?

Mr. Koch: Your Honor, the issues in this case are pretty well drawn, and there may be some of those regulations, some of the provisions of those manuals, that had application, and I think those should certainly be in evidence; but the one on ocean station vessels, and survival at sea, which deals with procedures for staying [626] alive for protracted periods in the open water and that kind of thing, are just not within the scope of this case, the issues of this case, and the record is cluttered, and make it more difficult to search out the portions of the manual that have application here.

The Court: The objection is overruled. Plaintiffs' Exhibit 31 is admitted. The Court will not consider any part of it on an issue which is not in this case, if some part of it applies to some other issue, as well. We have enough issues in this case to consider, I think, and the Court will not consider issues which are not in this case.

(Testimony of Dudley S. Cox.)

(Plaintiffs' Exhibit 31 for identification received in evidence.)

Q. Would you state, if you are able to tell, what the documents marked as Plaintiffs' Exhibit 32 consist of?

A. This is company regulations, practices and procedures, apparently the same as on Exhibit 31, the aircraft operating certificate, and also the charter flight page that is in the other group, general ditching of all aircraft, survival at sea, ditching principles, ditching procedures.

Q. Are those documents the same as Plaintiffs' Exhibit 31?

The Court: The same type of regulation or direction?

Mr. Riley: I will withdraw the exhibit temporarily.

The Witness: There is attached—— [627]

The Court: There is attached something which the witness wishes to mention in response to your inquiry.

The Witness: The large page attached refers to a Boeing 377 type aircraft.

The Court: Not this type at all?

The Witness: No, sir.

Mr. Riley: I will withdraw the exhibit at this time.

The Court: You may withdraw your offer of it. If you later find it should be withdrawn, you can bring it to the Court's attention.

Q. Referring to what has been identified as

(Testimony of Dudley S. Cox.)

Plaintiffs' Exhibit 33, can you identify the documents contained in that exhibit?

A. Civil Air Regulations, Part 41, Certification and Operation Rules for Scheduled Air Carrier Operations Outside the Continental Limits of the United States. Attached to that are some Civil Air Regulation amendments.

Q. Can you tell the dates of the documents, referring particularly to Part 41 of the Civil Air Regulations, the effective dates of those regulations?

A. The effective date of this particular copy of it, as amended to November 15, 1949.

Q. Are subsequent amendments to that document contained in the file before you there, can you tell?

A. There are amendments in this exhibit, and their dates run [628] from 1950 to 1952, December of 1952, March 1953, etc.

Mr. Riley: The plaintiffs offer Plaintiffs' Exhibit 33 in evidence, if the Court please. This document was produced by counsel and was withdrawn from counsel table. There have been previous discussions of it. I don't believe there are any objections to it.

Mr. Koch: No objection.

The Court: This exhibit is now admitted.

(Plaintiffs' Exhibit 33 for identification received in evidence.)

(Brief discussion among Court and counsel re length of trial.)

(Testimony of Dudley S. Cox.)

Mr. Riley: There was one other item raised by Mr. Koch, referring to 37 USCA 232, which prescribes the basic pay and allowances for members of the armed forces, and he was referring to pay grade E-4 in error. He states it was his impression of the testimony Sgt. Waldrep at the time of his death was a so-called buck sergeant, and we took exception to that, because it was our impression the testimony will show that he was a sergeant first class, which would make him a pay grade E-6. If Mr. Koch would simply agree that a sergeant first class is pay grade E-6, and we will agree a buck sergeant is pay grade E-4, then it is a matter of statute as to what the sergeant's pay would have been at the time of his death. [629]

Mr. Koch: I agree the statute should control whatever the facts may be.

The Court: But you are not agreed as to what the facts are about the grade?

Mr. Koch: My recollection is different from theirs. I could be wrong. Whatever the evidence is with respect to his rank, the statute measures compensation.

The Court: Try to leave no uncertainty about his rank at the time of his death.

Mr. Riley: I agree with Mr. Koch a buck sergeant would be a pay grade E-4, and I want him to agree, without bringing in another witness, that a sergeant first class would be a pay grade E-6.

Mr. Koch: Yes, I believe that would be true.

The Court: Only he does not agree that either

(Testimony of Dudley S. Cox.)

one of these persons for whom the plaintiff sues was a sergeant first class?

Mr. Riley: Yes, your Honor, that is my understanding.

(Brief discussion between counsel for defendant and the Court re withdrawing a document for the purpose of making a photostat. Request denied by the Court.)

The Court: The court is adjourned until tomorrow morning at 9:30.

(Court adjourned.) [630]

The Court: The witness will resume the stand for further interrogation.

Q. At the time of Flight 324, which was ship 601, and serial number 45342, at the time that aircraft crashed at Sandspit because of the fact that the No. 1 engine had been operated in excess of the maximum allowable time permitted by Civil Air Regulations, isn't that a fact?

Mr. Koch: I object to the form of the question, very leading. This is not cross examination.

The Court: Overruled.

A. The records after the accident disclosed that the time was over on that engine.

Q. What does the term "overshot" mean, Mr. Cox? A. Overshot with reference to landing?

Q. Overshot with reference to landing.

A. Actually, I think it probably should be referred to as overshoot. It is in the case of an aircraft that lands too far down the runway to bring the aircraft to a safe stop.

(Testimony of Dudley S. Cox.)

Q. Would you say that is why the pilot of Flight 324 elected to try to go around, because he had overshoot the runway?

A. I don't have an opinion. That could be one reason. There are other reasons, so perhaps——

Q. But that could have been one?

A. That could have been one. [631]

Q. If he had overshoot, and the visibility was reduced to snow flurries to one mile, as the weather was reported at Sandspit on the night of January 19, 1952, had the visibility been better, the pilot probably would not have overshoot the runway?

A. No, sir, I couldn't say that.

Q. It is possible? In other words, it is less likely that he would have overshoot had the visibility been improved?

A. Not necessarily. I couldn't say that specifically. His minimum there is 800 feet, and he was making an approach from north to south, and he must maintain 800 feet until he can see the runway. He hasn't any authority——

Q. But if visibility were impaired, he wouldn't have seen the runway as soon as he would have ordinarily, isn't that correct?

A. I am thinking of a turn around on the north leg of the approach pattern, and as he turns around, he maintains at least 800 feet or above until such time as he can come straight in.

Q. That is the procedure, rule, for that particular airport, that the pilot in making an approach using Sandspit low frequency range, he must main-

(Testimony of Dudley S. Cox.)

tain 800 feet until he has the field in sight, is that correct? A. That is correct.

Q. So that he couldn't go below 800 feet until he was within [632] one mile of the field, is that correct?

A. Not necessarily one mile. I think the regulations say until a straight-in landing can be effected.

Q. But if the visibility was restricted to one mile, and you couldn't see farther than one mile, he wouldn't have been permitted to go below 800 feet until he got within one mile of the field due to the regulations at this field, isn't that correct?

A. That is correct.

Q. If the visibility had been two or three miles or had not been obscured by snow flurries, he would undoubtedly have seen the field before one mile, wouldn't he? A. That is correct.

Q. To that extent he could have made a better approach to the field?

A. I would interject this: that he had three engines, was operating on three engines, and he would not come too low outside the airport because he wants to be sure of effecting his landing. That would necessarily keep him up somewhat higher, for caution.

Q. There is no question but what the aircraft landed at Sandspit because the No. 1 engine had failed?

A. I would put it this way, in my own words: he landed at Sandspit because of the regulation that required him landing at the nearest suitable airport. [633]

(Testimony of Dudley S. Cox.)

Q. But the regulations say he may proceed to the next point of intended landing or the nearest suitable airport?

A. No, sir, that is not our interpretation at that time.

Q. That was your report to the Civil Aeronautics Board as we read it from Exhibit 29 yesterday?

A. That is in the event——

The Court: Ask him a question.

Mr. Riley: I will withdraw the statement and proceed further because time is too limited.

Q. If crash and rescue facilities had been available at the point of landing at Sandspit on the night of January 19, 1952, would you say that some of the deaths could have been avoided and lives saved?

A. Crash and rescue equipment?

Q. Yes.

A. Meaning crash boats and similar things?

Q. Yes.

A. I am sure they could. I couldn't state positively because—well, yes, if they were there, they probably could have saved many lives.

Q. If there had been other and additional personnel at the field, other lives could have been saved?

A. That, again, depends on the equipment available.

Q. It is true none of the rafts were removed from the aircraft after the crash, isn't that right?

A. We couldn't state that positively. Some rafts were recovered. We saw one sticking out the navi-

(Testimony of Dudley S. Cox.)

gator's dome. That was there and it washed up on shore, to my knowledge. I found that one myself.

Q. How long after the crash did that wash up?

A. Three or four days.

Q. At that time, the aircraft had begun to disintegrate due to the tidal action and the weather, isn't that correct?

A. That is correct.

Q. And the washing on the sandbar?

A. Yes.

Q. If the passengers had not been instructed in use and location of life jackets and life rafts, wouldn't you say that lives could have been saved if the passengers had in fact been instructed in the use and location of life rafts and life jackets?

A. You say if they were not, and if they were?

Q. Yes. A. I hesitate to answer that.

The Court: Let me suggest this: assuming the answer to both "if's" is in the affirmative, then proceed with the question.

The Witness: If they had not been so instructed and if they were instructed, I think that probably more lives could have been saved. [635]

Q. If Air Sea Rescue facilities had been alerted——

The Court: Let me ask you this: consider that one statement of the "if's" had to be on the facts answered in the negative, and the fact trier found that only one of the "if's" was in the affirmative, what would be your answer to the same question a moment ago? I wish the alternative situation as to the existence of the conditions to be answered.

(Testimony of Dudley S. Cox.)

The Witness: If the alternative were true, if the "if's" were in the negative, then the facts speak for themselves: so many people were saved and the rest lost their lives.

Q. It is true that none of the individuals——

The Court: It is or is it not true.

Q. Is it or is it not true that so far as is known, all the personnel escaped from the aircraft after the crash? A. As far as we know, that is true.

Q. And that those people that were lost were lost due to drowning and exposure?

A. Yes, we believe that.

Q. And is it true or is it not that if life rafts had been used, that the lives of passengers which were lost might otherwise have been saved?

A. I couldn't state that. We think that probably that is a possibility. There is wind and tide and waves and [636] exposure, even under those conditions.

Q. A stewardess would not be expected to be able to life one of these rafts by herself, would she?

A. No, sir, but she is trained to handle those rafts. She wouldn't bodily——

Q. It wouldn't be necessary——

Mr. Koch: The witness had not finished his answer.

The Court: Finish your answer.

A. The stewardess is trained in ditching classes and in their training to operate and handle these rafts, which doesn't necessarily mean that they pick them up and walk around, but they all use the rafts,

(Testimony of Dudley S. Cox.)

can roll them, drag them, in some cases, lift them.

Q. In an emergency situation such as the stewardess aboard this flight was concerned, she would have had—would you say that she would require assistance from other personnel to remove the rafts from the aircraft?

A. That is a likely possibility. She does under such conditions—she is instructed in her training to remove the rafts from—

The Court: It is a question of her ability as an airplane stewardess.

The Witness: No, sir, I couldn't answer that. I don't know what size girl she was.

Q. Under ordinary conditions, the average stewardess would [637] require assistance in removing the rafts from the aircraft, is that a fact or not?

A. I believe that is a fact.

The Court: Can you in this connection describe the size or the weight of these rafts that are being mentioned in these questions, the normal size?

The Witness: About three and a half feet by a diameter of 18 inches, weighing about 100 pounds.

The Court: That is before inflation?

The Witness: Yes, sir. They are packaged in a cylindrical form. They can be dragged. They have handles on both ends, to be dragged or rolled.

Q. How fast can these rafts be inflated when removed from the aircraft?

A. The inflation time is thirty seconds to a minute, somewhere in that category.

Q. Would you say the two rafts in the main

(Testimony of Dudley S. Cox.)

cabin in this crash could have been removed within two minutes of the time of impact?

A. I can't answer the question. I don't know what the damage was in that area.

Q. Assuming an aircraft crashed at Sandspit, British Columbia, at 2 A.M., approximately, in the morning, had forty passengers on board; had two life rafts stowed aft of the main cabin door rather than forward of the main cabin door, [638] and assuming that the aircraft was substantially intact after impact and that all the passengers were able to evacuate the aircraft under their own power: could the life rafts have been removed within two minutes from the time of impact?

A. Yes, sir, if that is a planned ditching, which is where you have a chance to calm the panic. You are trained for that particular purpose, where you plan the operation. In case of a sudden unexpected situation, you are apt to have some serious passenger reaction to that, and that is very difficult to control at times.

Q. Would you say that that passenger reaction would be aggravated from lack of knowledge as to where the life rafts were?

A. Not necessarily. I couldn't answer that. Not in my experience.

Q. Would you say it would ordinarily require more time to remove the rafts from the cabin if the passengers didn't know where they were?

A. No, sir. That is a crew responsibility. The

(Testimony of Dudley S. Cox.)

crew are supposed to handle those situations. That is their responsibility, on board that aircraft.

Q. And still it is a fact under these conditions which we have just described that the crew, the stewardess, in this case, would require assistance from other personnel or passengers? [639]

A. Well, I stated, I believe, that that would be a very practical solution to the problem. That is not necessarily—I mean, if everyone was incapacitated in that area, I am reasonably sure, with her training, that she would roll these rafts out and yank the cord.

Q. Would you say whether or not in your opinion it would be true that if passengers did not know the aircraft was in distress, making an emergency landing in an over-water approach to an airport, they will not be alerted to the necessity of knowing location and use of life rafts and life jackets?

A. If they did not know that the aircraft was in distress? Did you say if they did not know?

Q. Yes.

A. We don't consider that three engine operation is distress as such. If—I'm sorry. Maybe——

Q. I will rephrase the question, and I will ask you whether or not you feel that passengers in an aircraft in an emergency condition who are not informed that they are operating in an emergency condition, that they are making an unscheduled and an emergency landing with an over-water approach to an isolated airport, that they would not then be

(Testimony of Dudley S. Cox.)

alerted to the necessity of knowing the location and use of life rafts and life jackets?

Mr. Koch: I object to the form of the question, [640] because the question refers to emergency condition, and as the witness has testified, as the record shows, there are various kinds of emergencies, each requiring different action on the part of the crew and the captain, and without specifying what he has in mind, the answer is bound not to——

The Court: The objection is overruled.

A. In this particular case, we considered a three engine operation as Flight 324 of that date a potential emergency and not an actual emergency. An actual emergency——

Q. That is not my question.

The Court: Read the question.

(Last question read by reporter.)

A. I am awfully sorry. That they would not be alerted to the position of life rafts and life jackets? This is an assumed situation, with no respect to our particular case, Flight 324. If it is an actual emergency, yes, they should have that information, particularly with respect to the life jackets, not so much, in my opinion, not so much with respect to the life rafts.

Q. Assuming a hypothetical situation, if passengers under those conditions were not informed——

The Court: You mean under the emergency conditions?

Mr. Riley: Yes, your Honor.

Q. If passengers were not informed that they

(Testimony of Dudley S. Cox.)

were making an [641] unscheduled landing because of loss of an engine, they would not feel the necessity of knowing that they should know where the life rafts and life jackets are?

The Court: Is that a question or an argument or a statement.

Q. Isn't that true, or——

Mr. Koch: I wonder if it would be appropriate that the questions refer to either life vests or jackets, since the witness explains his answer——

The Court: The objection is overruled. The witness is a very intelligent person, and he is following the questions, and it is believed by the Court that he will do the best he can, as he is manifesting an effort to do so at this time in answering the question. You may proceed.

(DC-4 operating manual marked Plaintiffs' Exhibit 34 for identification.)

The Court: If you wish the witness to further entertain the question, would you let that be known?

Q. Would you please answer the question, or do you wish it read?

The Court: Read the question.

(Last question read by reporter.)

Q. Is that true or false?

A. That is true in the case of an engine out operation. With an engine out operation and the landing at the nearest [642] suitable airport, the passengers undoubtedly—as the statement read, I think that would be a true statement there.

(Testimony of Dudley S. Cox.)

(NWA interoffice communication marked Plaintiffs' Exhibit 35 for identification.)

Q. In making a three engine approach to any airport, is it true or false that a pilot must always have in mind the possible necessity of taking a wave-off in the event of some unforeseen emergency developing on the runway or during the approach?

A. That is true. He should keep that in mind at all times.

Q. In a three engine operation of DC-4 aircraft, is it true or false that the failure of the No. 1 engine is considered the most critical of any of the four engines?

A. That is true.

Q. Would you explain why that is?

A. With the torque of the motors, the torque and rotation of the propellers, it appears that the No. 1 position is somewhat more critical than the others. Its effect is more noticeable, I should say.

Q. Showing you what has been marked Plaintiffs' Exhibit 34 for identification, can you identify those papers?

A. This refers to a three engine ferry operation.

Q. Are those promulgated by Northwest Airlines?

A. Yes, sir.

Q. Are there any other operations manuals provisions or [643] aircraft manuals provisions maintained by Northwest Airlines which deal with three engine operation of DC-4 aircraft?

A. Three engine power charts.

Q. Would you look at the material you have before you and determine whether those power charts

(Testimony of Dudley S. Cox.)

are there? A. No, sir, they are not.

Q. With the exception of the power charts, does that appear to be those portions of the Northwest Airlines operations manual dealing with three engine operation of DC-4 type aircraft?

A. Yes, sir, this deals with the three engine ferry operation.

Q. Are there any other manual provisions dealing with three engine operation of DC-4's?

A. No, sir, there are not.

Mr. Riley: I offer in evidence Exhibit 34.

Mr. Koch: The witness in identifying the document has explained it only applies to ferry operations. This is not a ferry operation. A ferry operation is when a flight is flown without passengers to take a plane from one point to another. Since his testimony is that the regulations of the company and the CAA require——

The Court: That is enough. Your statements are too long. I will reserve ruling. If you wish to ask any further questions of this witness in view of the objection [644] stated, you may do so.

Mr. Riley: He has stated that there are no other manual provisions governing three engine operations, and I submit it for that purpose, as well.

The Court: This plane is not a three engine operation, is that true or not true?

Mr. Riley: The aircraft at this time was a three engine operation, because the No. 1 engine had been secured and the propeller feathered.

The Court: You will have to show some fact,

(Testimony of Dudley S. Cox.)

either from the face of the instrument itself or else from the testimony, indicating its applicability to the situation alleged.

Mr. Riley: I will not take any more time on it, your Honor.

Q. Mr. Cox, following the crash of Flight 324, January, 1952, you did receive a number of reports from various personnel of the airline? Is that report which you have before you, Plaintiffs' Exhibit 35, one of the various reports submitted to you?

A. Yes, sir, that is correct.

Q. Who is Mr. Allen?

A. He is a flight dispatcher.

Q. Where was he stationed in January 1952?

A. He was stationed at Anchorage. [645]

Q. What does that report which you have, marked Plaintiffs' Exhibit 35, indicate?

A. Well, this is the facts surrounding the departure of the flight and anything that he knows concerning the flight.

Q. If any maintenance or inspection had been accomplished on the aircraft prior to its departure from Anchorage, would that report indicate what action had been taken?

A. No, sir, not necessarily. He might not have been aware of such information. His position is an office dispatcher. If the work is accomplished at the hangar or elsewhere, he might not have that information available.

Q. If the aircraft had been grounded for any report of discrepancy or malfunctioning, he would

(Testimony of Dudley S. Cox.)

have been advised of that as the flight dispatcher, would he not?

A. If it had been grounded, yes, because he is concerned with expediting the departure of the flight. He would not necessarily be told what the grounding was. The mechanic in charge may have grounded the airplane.

Q. Would the pilot's log indicate any reported discrepancy or maintenance action taken with respect to the aircraft? A. At Anchorage?

Q. Yes.

A. On its arrival from Shemya, the logbook should indicate what was done to the airplane.

Q. And the logbooks, if they are in evidence, would show any [646] mechanical action or maintenance action at both Shemya, Tokyo and Anchorage prior to its departure from Anchorage to Seattle? A. That is correct.

Q. Would you say that had engine No. 1 of the aircraft which was Flight 324 on the morning of January 19, 1952, had that engine been thoroughly inspected at Anchorage, that it is probable or possible that the failure of that engine could have been avoided?

A. No, sir. That is not at all possible or probable.

Q. You say it isn't at all possible?

A. If it had been thoroughly inspected, as I understood your question, could this trouble have been eliminated or forestalled? I say that is not at all possible or probable.

(Testimony of Dudley S. Cox.)

Q. Isn't it the least bit possible that a failure could have been detected?

A. It is the least bit, but failures of that nature, a frozen oil cooler, for example, flying in sub-freezing temperatures, the oil cooler freezes, so there is too much pressure, it breaches a line, and the oil comes out.

Q. If the engine were leaking oil?

A. If the engine itself were leaking oil by a crack in the crank case and there is an accumulation of that oil, it can be observed and washed down, and at that point the airplane is grounded.

The Court: We will close the plaintiffs' case in chief at 10 o'clock.

Mr. Riley: Yes, your Honor. While that document is being identified, I would like to ask that Exhibits 7 and 8, which are the letters of administration of the plaintiff in the Gorter case, should be admitted in evidence.

The Court: You ask them to be admitted at this time?

Mr. Riley: Yes, your Honor. The pre-trial document has sufficiently identified them.

The Court: As I advised counsel in the beginning, the order in which the exhibits were dealt with makes it very difficult to refer to the place in connection with whose testimony was anything said or any attempt made to identify in any way those exhibits.

Mr. Riley: Your Honor, the pre-trial order it-

(Testimony of Dudley S. Cox.)

self states that the authenticity is not to be challenged.

The Court: They have not been previously mentioned in this trial, is that true or not?

Mr. Riley: They have not been previously mentioned.

(Letters of Administration marked Plaintiffs' Exhibits 7 and 8 for identification.)

The Court: Do you offer them in evidence now?

Mr. Riley: I do, your Honor.

Mr. Koch: No objection.

The Court: Each of them is now admitted. [648]

(Plaintiffs' Exhibits 7 and 8 for identification received in evidence.)

Q. You did receive several other reports in the course of the investigation following the accident, and one of those came from Mr. Smith, the flight operations officer, is that correct? A. Yes.

Q. The flight superintendent or flight controller?

A. Yes, sir.

Q. Did you receive another of those, the one just identified by you from Mr. Allen, and did you receive one from Mr. D. V. Curry concerning the excess time on engine No. 1 of the aircraft that crashed?

A. Not in the nature of an accident report.

Q. He did submit a detailed report to you, dated February 6?

A. I believe that was a memorandum that we asked for.

Q. It was a fact that the engine which was the

(Testimony of Dudley S. Cox.)

No. 1 engine on Flight 324 had been previously removed in June of 1951 from another Northwest Airlines aircraft because of excessive oil consumption, is that right?

A. I couldn't answer that specifically. I believe that is correct.

Q. Do you have Plaintiffs' Exhibit 36?

A. I have 35.

The Court: Plaintiffs' Exhibit 36 is being handed [649] to the witness.

Mr. Riley: May the record show that these were withdrawn from the records here on counsel table.

The Court: Upon what understanding as to nature of contents do you offer it or deal with it at this time?

Mr. Riley: I will ask the witness to identify them, your Honor.

Q. Would you identify the documents before you?

A. The first page is a schedule prepared by Northwest Airlines Sales Department.

Q. What is the second sheet?

A. This is a transmittal letter from Mr. Pugh, chief accountant, accompanying a voucher which is attached thereto.

Q. Does one of those documents show payment to Northwest Airlines for the services provided by this flight? A. I presume that is correct.

Mr. Riley: I offer Plaintiffs' Exhibit 36 for identification in evidence.

Mr. Koch: Your Honor, I have no objection to

(Testimony of Dudley S. Cox.)

the first part of it. The last page deals with a schedule that became effective subsequent to the accident. I can't see that it has any bearing on the case.

The Court: Do you offer it for that schedule?

Mr. Riley: We will remove the last page.

The Court: The last page will be removed. [650]

Mr. Riley: I have one additional document, if the Court please, which is attached to the pre-trial order and consists of the contract between Northwest——

The Court: That exhibit is admitted. Your time is now up.

(Plaintiffs' Exhibit 36 for identification received in evidence.)

Mr. Riley: There are two additional exhibits which the plaintiff just identified a moment ago. Plaintiffs' Exhibit 35 is a communication to Mr. Cox from Mr. Allen, the flight superintendent at Elmendorf. I offer that in evidence, if the Court please.

Mr. Koch: I have no objection to 35.

The Court: It is now admitted.

(Plaintiffs' Exhibit 35 for identification received in evidence.)

The Court: 34? Are you offering that?

Mr. Riley: I offer Plaintiffs' Exhibit 34, if the Court please. It deals with three engine ferry operations. I offer it for the purpose stated previously, Mr. Cox having stated there are no other manual provisions dealing with three engine opera-

(Testimony of Dudley S. Cox.)

tions of a DC-4 in Northwest operations at the time of the crash.

Mr. Koch: I object, your Honor.

The Court: The objection is sustained. [651]

Mr. Riley: The contract contained in the pre-trial order as Plaintiffs' Exhibit 9 is offered in evidence, having been identified, the largest document attached there.

The Court: It never has been mentioned before and it will now be marked Plaintiffs' Exhibit 9.

(Contract marked Plaintiffs' Exhibit 9 for identification.)

The Court: Is there any objection to it?

Mr. Koch: No, your Honor.

The Court: It is admitted. We cannot take any more testimony.

(Plaintiffs' Exhibit 9 for identification received in evidence.)

Mr. Riley: Thank you, your Honor. As I stated yesterday, in full consideration of the Court's burden of the calendar and the docket, I would like to renew my exception to the Court's ruling, because we have had to rush through.

The Court: The exceptions are allowed with like effect as if everything noted in this connection were being stated at this moment. The only thing the Court would except from the Court's last statement that the plaintiffs' case in chief will have to be rested is you may deal with the marked exhibits. It may be that through some oversight counsel have not asked that they be admitted [652] and

that there would not be any objection to it, and we will spend a few minutes considering that. A-17, marked for identification, has not been received in evidence.

Mr. Riley: I have no need for A-17, your Honor.

The Court: You are not making any offer?

Mr. Riley: No, your Honor.

Mr. Koch: May I inquire what A-17 is?

The Court: I will do that a moment later. I am working on the plaintiffs' case in chief, and I will pursue that until it is completed.

The next exhibit of the plaintiffs which was marked for identification is Plaintiffs' Exhibit 26, while Mr. Lewis was on the stand.

The Clerk: That was rejected, your Honor.

The Court: The next exhibit not admitted which has been marked for identification and no action noted by me in my trial notes is Plaintiffs' Exhibit 32, which I believe was some paper or papers relating to the flight manual.

Mr. Koch: It was withdrawn by the plaintiff, your Honor.

Mr. Riley: Yes, your Honor. I will withdraw the offer of Plaintiffs' Exhibit 32.

The Court: It is withdrawn and returned to counsel.

Mr. Riley: It is my understanding 31 was admitted?

The Court: That is true. [653]

Mr. Riley: Plaintiffs' Exhibit 28——

The Court: 32 is withdrawn and returned to

counsel who produced it, unless counsel who produced it wishes otherwise.

Mr. Koch: It came from the table here, your Honor.

The Court: The Court will now apply as effective the requirement that the plaintiffs' case in chief be now closed.

Mr. Riley: Your Honor had reserved a ruling on Plaintiffs' Exhibit 28, as I understand, or has that been admitted?

The Court: The offer was rejected because of the objection that it was in violation of the provisions of Section 581 of Title 49, and that ruling was made upon the information which the Court then had that it came from the records of the Civil Aeronautics Board or the Civil Aeronautics Administration having such record. If that is not true, I would like to know if it is not.

Mr. Riley: Yesterday we had a lengthy discussion of the authority contruing that section.

(Further discussion re Plaintiffs' Exhibit 28.)

The Court: I will have to let the ruling stand. That is the order of the Court as to Plaintiffs' Exhibit 28. The Court's previous ruling will stand.

Is there any other thing, Mr. Riley, that occurs to [654] you? You may confer with your associate, if you would like to, to see if there are any other procedural points or any other thing that has been overlooked.

Mr. Riley: If your Honor please, I want to direct the Court's attention again to plaintiffs'

motion to strike a portion of the defendant's answer for refusal to obey a lawful subpoena duces tecum. At the time it was originally argued as a motion, the Court's records will show it was continued on call. Counsel at that time stated all the reports would be produced. As to that exhibit which your Honor just finally rejected, the statement of Mr. Cox which was given to the Civil Aeronautics Board, it is our contention that that can be obtained, and that the defendant should be ordered to produce that so that it can be placed in evidence.

The Court: Which is that? I am looking at the pleading.

Mr. Riley: I am moving, if the Court please, to strike the defendant's answer entirely and to impose costs for refusal to make discovery in accordance with my original motion, which is on file before the Court, and the original arguments of which were continued on call.

(Further argument re motion.)

The Court: The Court directs that the production in response to the subpoena duces tecum or prior thereto, [655] prior to the serving of the subpoena duces tecum, that response to the requirements of the subpoena duces tecum respecting that document have been complied with by the defendant.

(Further argument re motion.)

The Court: Based upon the provisions of Section 581 of Title 49, USC, the Court's ruling on that will stand. Is there anything else to be said about these matters by the plaintiff?

Mr. Riley: I have nothing further on that point.

The Court: We will take a short recess, after which we will proceed. I would like the defendant's counsel to consider in connection with the matter of cross examining this witness before he is excused from the stand that if, in respect to the matters and things touched upon in the direct examination by Mr. Riley of this witness, the defendant as a part of the defendant's case in chief intends to go into the same subject matter with this witness, then I suggest to you the very strong propriety that you omit to examine by way of cross examination now this witness as to those matters.

Mr. Koch: I will waive cross examination.

The Court: The Court declares that the plaintiffs' case in chief is rested, and the defendant may after the recess proceed with defendant's case in chief. Those [656] connected with this case are excused at least ten minutes and may now retire.

(Recess.)

The Court: You may proceed in the case on trial.

Mr. Koch: Mr. Cox, will you resume the stand, please?

DUDLEY S. COX

called as a witness by defendant, having been previously sworn, was examined and testified as follows:

Direct Examination

Q. (By Mr. Koch): What is your present employment?

(Testimony of Dudley S. Cox.)

A. I am a captain with Northwest Airlines, a flight captain.

Q. Where do you operate from?

A. My usual run is from Seattle to the Orient, over the North Pacific.

Q. How long have you been serving as a Northwest Airlines captain?

A. Since about 1953, for this last time. I have been captain before that.

The Court: May I interrupt to ask did you intend also to say that you are also manager of flight operations for Northwest Airlines with flight personnel supervision? [657]

The Witness: Not at this time, your Honor.

The Court: When were you such?

The Witness: From about 1950.

The Court: Were you on January 19, 1952?

The Witness: Yes, sir, I was.

Q. At that time, as manager of flight operations, where were you located?

A. At St. Paul.

Q. Is that the general office of Northwest Airlines?

A. That is the general office of Northwest Airlines.

Q. How long did you occupy that position?

A. About three years.

Q. Will you trace your service experience prior to 1949?

A. I was chief pilot at Seattle for about five years, and chief pilot for the company on their

(Testimony of Dudley S. Cox.)

northern region, stationed at Edmonton, Alberta; and before that was a captain of Northwest Airlines based at Seattle; and then I was co-pilot for Northwest Airlines before that; and on active duty with the Air Force, about 1941-1945.

Q. Have you had flying experience on DC-4 type aircraft? A. Yes, sir.

Q. Can you estimate the number of hours?

A. Somewhere between three and four thousand hours.

Q. What type of equipment are you flying at the present time?

A. Constellations, DC-7's, DC-6-B's, Boeing Stratocruisers. [658]

Q. As manager of flight operations of Northwest Airlines in January, 1952, did your duties require a familiarity with Northwest procedures, with the operating manuals, and the Civil Aeronautics Administration regulations?

A. Yes, sir.

Q. Are you familiar with the contract entered into between the Department of the Air Force and Northwest Airlines, which was dated September 23, 1950? A. Yes, sir.

Q. Is that a copy of the Northwest Airlines-Air Force contract, Exhibit 9?

A. Yes, sir, it is.

Q. Directing your attention to the portion of that contract on which I have put a metal clip, designated Exhibit A, do you find that portion?

A. Yes, sir.

(Testimony of Dudley S. Cox.)

Q. What does Exhibit A deal with, generally?

A. The services called for under the contract.

Q. To be performed by whom?

A. Performed by the military, the MATS Air Transport Service.

Q. Does that Exhibit A deal with briefing of passengers? Exhibit A is a portion of Exhibit 9. That is the way the contract designates a portion of it. Do you find the portion relating to briefing of passengers? A. Yes, sir, I do. [659]

Q. Will you read that section, please?

Mr. Koch: I don't think he should be allowed to read it. The exhibit will speak for itself.

The Court: The Court will hear him do it, although I wish counsel would have in mind that this Court is always very much pleased if counsel wish to defer their reading until they get ready to produce the whole thing together so far as reading is concerned. It could be done at any time during the trial, or it could be done during argument. During argument, counsel, can refer to physical evidence before the Court like this, the contents of it.

Mr. Koch: It is such a long exhibit that I wanted the particular short portion.

The Court: If you believe, as I understand you do, it will shorten present and future reference to it, you may do that.

Mr. Koch: Thank you, your Honor.

A. "The Commander, MATS, or his duly authorized representative will: 1. Maintain traffic

(Testimony of Dudley S. Cox.)

control and priorities; 2. Load and unload the aircraft and provide ground handling, dispatching and briefing services at no cost to the Contractor.”

Q. To whom is the briefing service rendered?

A. Briefing service is rendered to the passengers carried aboard the aircraft. [660]

Q. What type of briefing did the military give passengers before departure of these over water flights?

Mr. Riley: I object. He is leading the witness. If he knows.

The Court: Be sure you condition it.

Q. If you do know, will you state what type of briefing the Military Air Transport Service gives to passengers embarking on over water flights?

A. The military passengers embarking on over water flights were assembled in one——

Mr. Riley: I would like to have the witness state that he knows what was done.

The Court: Do you know?

Mr. Riley: At the time, January 19, 1952.

The Witness: Yes, sir.

The Court: You may answer.

Mr. Riley: Would you state when and where you were ever attending one of these briefings in January, 1952?

The Witness: I attended none.

Mr. Riley: Did you attend any briefing having to do with Flight 324?

The Witness: No, sir, I didn't.

(Testimony of Dudley S. Cox.)

Mr. Riley: I object to the witness answering the question.

Mr. Koch: Your Honor, this is a contract which covers [661] a military air transport of military personnel to and from the Orient, and this witness was familiar with this contract and the administration of the flight operations. He does have familiarity with the briefing that the contract required and of the facilities at the terminals for that briefing.

The Court: The contract speaks on that, doesn't it?

Mr. Koch: No, it just says they will do briefing. Now he is going to explain what that briefing consisted of.

The Court: He can say, if he knows, what they were instructed to do, but he cannot say what was done in a specific instance if he was not there. If he knows what they were instructed concerning that activity, he can say what he knew.

Q. Did you ever make inspection trips to the Orient where you had the opportunity to observe the military briefing setup? A. Yes, sir.

Q. What was that setup?

A. That was a display of emergency equipment in one locality, for observation by passengers or other interested people, consisting of a life raft, opened, inflated, and the contents of the life raft laid out on the surrounding platform; life vests; emergency flares; emergency K rations; Gibson Girl manual transmitter; and, in general, things

(Testimony of Dudley S. Cox.)

of that [662] nature. These were displayed and labeled for the benefit of military personnel.

The Court: Displayed where, if you know?

The Witness: At the airport, sir.

The Court: What airport?

The Witness: At Haneda, Anchorage, and I can't remember whether I saw one at McChord or not.

The Court: Do you have any recollection about Shemya?

The Witness: No, sir, they were not displayed at Shemya.

Q. You do recall—did you see the display at Haneda Air Base in Tokyo?

Mr. Riley: I would like to have the witness be asked when he made this trip.

The Court: That cannot all be done in one question.

The Witness: Yes, sir. I made the trip over there in the latter part of 1951.

The Court: What month, would you say?

The Witness: It was in the fall, I think. I couldn't be specific on that.

Q. Did you see the display at Haneda Air Base near Tokyo in the fall of 1951?

A. I think that's about the approximate time, and I did see such a display.

Q. Did the display include a life vest, do you know? [663]

A. Yes, sir, it included life vests.

Q. Do you recall what type of life vest it was?

(Testimony of Dudley S. Cox.)

A. No, I don't.

Q. Do you know what instructions accompanied the display of the flotation gear and life-saving equipment that you observed given by the military to passengers embarking on such flights?

A. What instructions were given to passengers?

Q. Yes, briefing instructions.

A. Well, they were told that these articles were carried aboard the airplane.

Mr. Riley: He is quoting now from hearsay. I object.

The Court: Withdraw the question and advise him not to answer hearsay.

Q. You may testify what you know, but not what somebody else told you.

A. I did not attend a briefing session at Hana on this particular session. I did confer with MATS officers in Washington, D. C., and——

Mr. Riley: I am going to object now. He is about to refer to hearsay testimony and what other persons said.

The Court: You cannot say what they said. You can say what you did in bringing about your state of information such as you had about the subject.

Q. Were arrangements made imposing certain briefing duties [664] on Northwest Airlines and certain briefing duties on the military?

Mr. Riley: I object. Mr. Koch is consistently leading the witness.

The Court: Sustained. Ask him what, if any-

(Testimony of Dudley S. Cox.)

thing, was done regarding such-and-such a subject.

Q. What, if anything, was done concerning division of duties with respect to briefing passengers?

The Court: To your knowledge.

A. As the passengers were boarding their aircraft, they were given a pamphlet in which the pamphlet gave general ditching principles, location of life vests and emergency gear, including life rafts, and the passengers were asked to read this ditching pamphlet and to ask questions of the stewardess or crew for any information that they desired in connection with the articles.

Q. At the conference that you referred to in Washington, D. C., between you and other representatives of the airline and representatives of MATS, do you know whether there was any arrangement with respect to the division of briefing duties?

A. I can't answer that specifically. It was part of the contract that the military would do the briefing of its own passengers, and that was all that we really had knowledge of.

Q. Do I understand that in addition to such briefing as [665] may have been——

Mr. Riley: Mr. Koch is leading.

The Court: The objection is sustained. This is a very intelligent witness. You needn't lead him.

Q. When did Northwest Airlines brief its passengers flown pursuant to this contract?

A. As they boarded the airplane.

(Testimony of Dudley S. Cox.)

Q. Where?

A. At either Haneda or McChord Field, at the origination of the flight.

Q. Where did Flight 324 of the 17th of January, 1952, originate?

A. At Haneda Airport in Japan.

Q. With respect to this flight, if that was the point of origin, do you know whether or not briefing would have taken place at that point?

A. That was where the briefing would have taken place concerning the ditching pamphlets for Northwest.

Q. Is the briefing performed by Northwest Airlines done——

Mr. Riley: Mr. Koch is again leading the witness.

The Court: Try to avoid that.

Q. Do you know whether or not Northwest Airlines regulations or CAA regulations provide for and prescribe briefing of passengers?

The Court: Answer yes or no.

A. Yes. [666]

Q. Do you know whether or not the briefings provided by Northwest Airlines to passengers on flights subject to this contract were in accordance with the CAA regulations?

The Court: Answer yes or no.

A. Yes.

Q. Do you know whether or not the Northwest——

(Testimony of Dudley S. Cox.)

Mr. Riley: I would like to object that I think he should be required to state how he knows.

The Court: Counsel does not have to ask him that if he does not want to.

Mr. Koch: I will be glad to.

Q. How do you know that?

A. There was a general amendment to the Civil Air Regulations which left the duties of exactly how to brief the passengers largely in the hands of the airlines. They did insist and consider it good operating practices, both nationally and internationally, to do so. The Civil Aeronautics Administration did not specify this particular type of briefing. They were aware of Northwest practices, Pan American practices, all airline practices concerning this particular thing. The specific part of the regulation said that it will carry a life vest for each passenger and sufficient life rafts to accommodate all passengers on the airplane. I think those were the specific details. The general procedures and briefing were not specified, to the best of [667] my knowledge.

Q. Do you know whether or not this subject was covered in Part 41 of the Civil Air Regulations dealing with flights outside the continental United States.

A. I couldn't quote the paragraph in Part 41. It is my understanding and belief that it is covered within Part 41, which is the foreign operating part of the CAA.

Q. Do you know whether or not the Northwest

(Testimony of Dudley S. Cox.)

Airlines operations manual, Volume C, deals with ditching procedures to be invoked in case the plane has to make an emergency landing?

The Court: Answer yes or no. It is whether you know.

Q. The question is, do you know whether or not the Northwest operations manual, Volume C, covers ditching procedures to be invoked in case of an actual emergency requiring a landing?

A. Yes, there are provisions in the manual.

Q. Do you know whether or not those provisions were carried out in this case?

A. No, they were not carried out in this case.

Q. Do you know why that was?

A. The procedures in the manual are for a planned ditching where some period of time elapses from the declaration of an emergency, so that the plane can be prepared for that, gasoline dumped, people instructed to put on their jackets. In this instance, there was no such time interval at all.

Q. Yesterday you testified that if life rafts were stowed behind the curtain aft of the main passenger door, instead of forward of the main passenger door as described in the ditching folder, that the crew would not have the duty or responsibility to instruct the passengers of the precise location?

A. Yes, sir.

Q. Is that not correct? A. Yes, sir.

Q. Upon what do you base your opinion?

A. Well, first, it isn't the passengers' responsibility to launch the raft. It is the crew's responsi-

(Testimony of Dudley S. Cox.)

bility to launch the raft. The passengers are not bound by that responsibility, but the crew are. The crew are the people that should know where the placement of these rafts are and be able to operate them. That has nothing to do with the passengers.

The Court: That is sufficient.

Q. Do you know what the distance would be between the position of the life rafts described in the ditching folder and their location aft of the main cabin door?

A. Well, it is just a short distance, I think four or five feet. I couldn't be sure of that.

Q. Do you know what crew member has the responsibility for launching the life raft? [669]

A. Any crew member may launch the life rafts, cabin crew or cockpit crew.

The Court: I believe he wishes to know who among those you named have the duty. I think he wishes your answer to show who they are.

A. The stewardess, the co-pilot, the navigator, flight engineer, if carried, purser, if carried, or second stewardess or second male attendant in the cabin.

Q. Who composed the crew of Flight 324 on the 17th?

A. A crew of three, a captain, co-pilot, and a stewardess.

Q. Do you recall the weight of the life raft?

A. I think roughly 100 pounds to 110. I think someone testified to 110 in court.

(Testimony of Dudley S. Cox.)

Q. Do the regulations dealing with launching life rafts and establishing ditching procedures authorize a crew member to obtain passenger assistance, if necessary, if you know?

A. Yes, sir. They suppose that circumstances will arise where passengers are drafted for the purpose of expediting the launching of the rafts.

The Court: In your mind, is there any question as to whether the location of the airport, airfield, at Sandspit is located in America or other national territory?

The Witness: It is located in the Queen Charlotte Islands, which is Canadian waters, part of British Columbia.

The Court: Was that verified later by later investigation [670] on behalf of the defendant?

The Witness: Yes, sir. The accident occurred half a mile offshore.

The Court: Just where the accident occurred?

The Witness: Yes, sir.

Q. Where is Sandspit located?

A. In the Queen Charlotte Islands, about the center island, halfway down the island chain, I would guess, which is about 500 miles north of Seattle, off the coast of British Columbia.

(Sheet, Flight Operations Manual, marked Defendant's Exhibit A-19 for identification.)

(Passenger Manifest marked Defendant's Exhibit A-20 for identification.)

(Order for air transport service marked Defendant's Exhibit A-21 for identification.)

(Testimony of Dudley S. Cox.)

Q. Handing you what has been marked Defendant's Exhibit A-19, will you identify that?

The Court: State, if you know, what it is.

A. This is a copy of air carrier operating certificate, signed by James Douglas, superintendent, flight operations branch, Civil Aeronautics Administration.

The Court: Does it have any other type of heading? Is it something printed and distributed to more than one person by someone? [671]

The Witness: Yes, sir. It is a manual page issued to personnel in Northwest Airlines.

The Court: Will you look at that carefully and see if it is a printed directive or regulation or rule of some sort promulgated by someone, and, if so, who?

The Witness: It is a printed page from a Northwest Airlines flight operations manual which is distributed to Northwest personnel, promulgated by the Civil Aeronautics Authority, which certifies that Northwest Airlines International Certificate No. 301-F is competent to operate internationally.

Q. Does that authorize Northwest Airlines to engage in international air carriage?

A. Yes, sir, it does.

Mr. Koch: I will offer it in evidence, your Honor.

Mr. Riley: This document is nothing more than a copy of a United States Government document, and I don't know that it is anything at all. I don't

(Testimony of Dudley S. Cox.)

think it is the best evidence, and I would object to it accordingly.

The Court: The objection is overruled. Defendant's Exhibit A-19 is admitted.

(Defendant's Exhibit A-19 for identification received in evidence.)

Q. Who prepared the operating schedule which is Plaintiffs' Exhibit 36? [672]

A. It is prepared by the Sales Department of Northwest Airlines.

The Court: State, if you know, what it is. Give it a one-word name.

The Witness: This is an operating schedule, prepared by Northwest Airlines.

The Court: An airline flight operations schedule?

The Witness: Yes, sir.

Q. Did this schedule refer to flights flown under the Air Force contract with respect to which you testified?

A. Yes, sir.

Q. For which period?

A. From November 7, 1951, presumably until revised.

Q. Do you know whether or not this schedule was in force at the time of the accident on January 19, 1952?

A. Yes, sir, to the best of my knowledge, that is correct.

Q. Does that schedule deal with plane No. 601 involved in this accident?

A. Not by 601. This covers the operation of

(Testimony of Dudley S. Cox.)

Flight 324 from Haneda eastbound to the States, and Ship No. 601 was designated as MATS Flight 324. May I make one correction? The effective date of this schedule is November 15th.

The Court: What year?

The Witness: 1951.

Q. I understood your testimony that it covers Flight 324 of the 17th, departing from Tokyo eastward with a destination [673] where?

A. Destination was McChord Field.

Q. What is the schedule of stops?

A. Flight 324 departed Tokyo at 5:00 P.M. daily. Correction, I will read this time in Greenwich time, because it is east longitude.

Q. I am not concerned with time, just the dates and stops.

A. The stops are Shemya, Anchorage, Seattle or McChord, and in this case, Flight 324, the destination is McChord.

Q. And the point of origin? A. Is Tokyo.

Q. So it was a flight from Tokyo to——

A. McChord Field.

Q. Via—— A. Shemya and Anchorage.

Q. It left Tokyo when?

A. This schedule says flight departs Tokyo at 0800 Greenwich civil time. That is 5 P.M. Tokyo time.

Q. What day, year, month?

A. The flight in question, 324 of the 17th, that would be departing 5 P.M. on the 17th of January, 1952, but I believe—the schedule calls for that de-

(Testimony of Dudley S. Cox.)

parture. Flight 324, I believe, was delayed somewhat.

Q. What is Exhibit A-20?

A. This is a passenger manifest. [674]

Q. A-21, please?

A. This is a service order to Northwest Airlines specifying that the Commander of MATS desires 36 flights during the month of January from January 1, 1952, to January 31, 1952, to be performed by Northwest.

Q. And that is issued by MATS, you say?

A. Yes, sir, service order to Northwest Airlines.

Q. Is that like an airplane requisition under the contract?

A. Yes, sir. It specifies the contractor, the make, DC-4, and/or cargo aircraft available to the United States for this number of flights.

Q. What is the number of that document?

A. Service Order No. 19, Contract No. AF 33 (038) 14678.

Q. Does that document have reference to Flight 324 of the 17th?

A. Well this document does not say how the flights will be called. It simply specifies the number of flights, the aircraft operating flight schedule is then prepared on the basis of this service order, and the flights numbered 323, 324, whatever the case may be.

Q. Is that service order issued under the provisions of the Air Force — Northwest Airlines contract?

A. Yes, sir.

(Testimony of Dudley S. Cox.)

Mr. Koch: I offer it in evidence, your Honor.

Mr. Riley: No objection. [675]

The Court: That is now admitted in evidence, being Defendant's Exhibit A-21.

(Defendant's Exhibit A-21 for identification received in evidence.)

Q. Handing you what has been marked Defendant's Exhibit A-20, what is that?

A. This is a passenger manifest, air passenger manifest.

Q. Who prepares the air passenger manifest?

A. The representatives, MATS Air Transport Service.

Q. Does it relate to Flight 324 of the 17th?

A. Yes, sir. This is the passenger manifest of Flight 324 of the 17th.

Mr. Koch: I offer it in evidence.

Mr. Riley: No objection.

The Court: Admitted.

(Defendant's Exhibit A-20 for identification received in evidence.)

The Court: For my convenience, will you give a name to A-21?

The Witness: Service order requisition for services under the contract No.—

The Court: Do counsel agree on a one-word name for that paper, A-21?

Mr. Koch: Aircraft service order.

The Court: Order from whom? [676]

Mr. Koch: From the Military Air Transport Service to Northwest Airlines.

(Testimony of Dudley S. Cox.)

The Court: Would you say it is a MATS aircraft service order?

Mr. Riley: That is the designation, your Honor.

Q. Mr. Cox, what is a flight plan?

A. A flight plan is a plan of action by the pilot regarding the flight he proposes to make, the times en route, the amount of gasoline he will burn, and the time he expects to make good from the forecasts at his disposal.

Q. There are a number of papers attached together to A-3. Are they all part of the flight plan?

A. With the exception of the aircraft service check. A copy of this check is given independent of the flight plan, which is attached to the papers subsequently by the pilot.

Q. Will you explain what each of the components of the flight plan is?

A. The first attachment is a cross section of the weather expected to be encountered en route between Elmendorf and Seattle, giving a cross section, the cloud formations, the ceilings and the winds and what other information is pertinent, fronts, icing conditions. On the reverse side of that is a line on a map from Anchorage to the Seattle area. The black line shows in general the path of the airplane on this map type, whatever type it is. The next [677] sheet is the flight plan proper, which specifies the aircraft number, the flight number, and the NC number. That is the number of the aircraft certificate, Civil Air certificate. There are the signatures of the people involved in clearing this flight,

(Testimony of Dudley S. Cox.)

which would be the flight dispatcher, and the captain, and the times at the check points he expects to make good for the entire flight, plus the alternates prescribed in the clearance and the amount of gasoline that he expects to have on board or he does have on board and expects to use for the duration of the flight.

The next page is a weather sequence of weather which gives the spot weather sequences at various stops, and that spot sequence means an observation, a weather observation taken at a particular time, and the ceiling, visibility, temperature and dew point and wind conditions at that time, and these are done hourly. This is an hourly sequence.

The next is a forecast prepared by Northwest Airlines meteorologist which gives winds aloft, terminal weather synopsis, that is, the general weather conditions, and the en route weather and terminal weather, anything else that may be of interest, which would include turbulence or icing conditions. Next, the aircraft service order, which for the pilot's benefit normally consists of balancing out [678] the fuel added and the oil added to see he has the proper amount of fuel aboard which he specifies in his flight plan.

Q. Who makes up the flight plan?

A. The captain of the flight makes the flight plan out.

Q. Do others participate in its final acceptance?

A. Yes, sir. The flight dispatcher concurs and agrees, and he participates. The signature of both

(Testimony of Dudley S. Cox.)

the flight dispatcher and the pilot appear on the flight plan. Both concur that the flight is safe and can be made, and they are agreed in the amount of fuel carried, a route to be flown, etc. There is another individual involved in this case, that is the receiving flight dispatcher. Between Seattle and Anchorage, the route is divided into two dispatch areas, roughly, Annette Island is the boundary line. The receiving flight superintendent has to specify the amount of fuel he wants over the boundary of his district before he will receive the flight, and his name also appears in the flight plan. It is typed; it isn't signed.

Q. The flight dispatcher at the place where the flight plan is made up is who?

A. That is the originating flight dispatcher. In this case, that was Elmendorf.

Q. And the other flight dispatcher you refer to is in Seattle? A. Seattle, yes, sir. [679]

Q. Do I understand you correctly that those two flight dispatchers and the pilot must be in agreement before the flight plan is acceptable?

A. Yes, sir.

Mr. Koch: Will you hand the witness Exhibit A-4 from the pre-trial order?

The Court: Do you wish it dealt with here in this trial?

Mr. Koch: Yes.

The Court: If so, it is necessary to have another exhibit number here, the next defendant's exhibit

(Testimony of Dudley S. Cox.)

number. I wish it marked Defendant's Exhibit A-22.

(Weight and balance manifest marked Defendant's Exhibit A-22 for identification.)

The Court: First, I would like you to state, if you know, what sort of thing that is, having in mind the character of its information.

The Witness: This is a weight and balance manifest concerning Flight 324 of the 17th, departing Elmendorf, which specifies——

The Court: That is sufficient. Does it relate to cargo or passengers on board?

The Witness: Both, yes, sir, by weight.

Mr. Koch: I will offer it in evidence.

Mr. Riley: I have no objection. [680]

The Court: Admitted.

(Defendant's Exhibit A-22 for identification received in evidence.)

Q. How many passengers does the weight and balance manifest show were aboard, or does it show that?

A. It shows there were forty passengers aboard.

Q. Does that include the crew?

A. No, sir, it does not include the crew in that compilation. The crew is added in another section. It shows a crew of three.

Q. Does that exhibit show the maximum loaded capacity of the plane? A. Yes, sir, it does.

Q. What is that? A. 71,800 pounds.

The Court: Maximum loaded weight?

(Testimony of Dudley S. Cox.)

The Witness: Maximum gross weight for take-off, maximum allowable gross weight.

Q. Does this exhibit show the weight of the plane load on takeoff? A. Yes, sir.

Q. What does that show? A. 68,275.

Q. Can you determine from that exhibit whether or not the weight was distributed in accordance [681] with the CAA and Northwest Airlines regulations?

A. Yes, sir. As far as I can see, the form is correct in the way it is made out, and the numbers appear to be correct. The index—I couldn't say that they are correct, but the form appears to be correct in all respects.

Q. Do you know whether or not Exhibit A-5 contains a record of communications received by the Seattle dispatch office of the flight in question?

A. Yes, sir, it does.

Q. What communications are contained in that exhibit, I mean, communications received over what circuit?

A. Well, what information is contained here? It is the flight plan information and the position of the aircraft as it departed and proceeded towards Seattle.

The Court: As indicated by what?

A. Messages.

The Court: Messages between whom, if you know?

A. Between the aircraft and the ground station.

(Testimony of Dudley S. Cox.)

The Court: The ground station with which it at the moment was in contact?

A. Which it was in contact with.

Q. With respect to the messages contained on that exhibit, what is the source of them as far as Northwest Airlines is concerned? How does Northwest Airlines receive those messages? [682]

A. Northwest receives them from the stations, the Civil Air Circuit, who received the message from that airplane. That is in turn relayed to the——

The Court: Such as what stations on this route?

The Witness: Annette Island, Yakutat, Yakutaga, Cordova, Anchorage.

The Court: Do you see any such station identification in connection with those messages on that exhibit?

The Witness: Yes, sir.

Q. And the Civil Air stations you refer to, what do you mean by Civil Air stations?

A. Stations operated and run by the United States Government Civil Aeronautics Administration.

The Court: Look at those casually. What significance does the information disclosed by that exhibit have to you as an experienced pilot?

The Witness: It tells me that the flight plan of the airplane was made and transmitted properly.

The Court: It means that the flight plan and the normal flight, as according to the regulations

(Testimony of Dudley S. Cox.)

and the directions under which the flight was moving, were all being accomplished?

The Witness: Perfectly normal manner, yes, sir.

The Court: Does it show anything else of importance?

The Witness: Yes, sir, that the fact that the [683] normal course of events was interrupted by the feathering of the No. 1 engine, on a message when he was about abeam of Sitka.

Q. Along the same line, does it have any further significance with reference to what was done when the engine was feathered near Sitka?

A. The captain of the flight advised that he was proceeding to Sandspit, and the other—from there on, the significance to me was that he was proceeding on three engines, and he did account for his times as he proceeded on three engines from that point, and in checking those times, it appears that the aircraft was operating normally on three-engine power, in a perfectly normal manner, and I could see nothing that was any undue delay or any other complicating factors in its progress after it had lost the No. 1 engine to Sandspit.

Q. Do you know whether or not that exhibit has any messages dealing with communications between the flight superintendent in Seattle and the pilot with respect to his course of action?

A. Yes, sir. He advised that he was proceeding towards Sandspit. There is a message from Seattle flight control asking if he intended to land at Sand-

(Testimony of Dudley S. Cox.)

spit. There is another message that he was estimating over Sandspit at a certain time.

The Court: Do you know what that was?

The Witness: Yes, sir. He estimated over [684] Sandspit 0928, that is Greenwich civil time.

The Court: Would you tell us what time it was at Sitka or our daily clock time?

The Witness: Three minutes after midnight, sir.

The Court: Over what place at three minutes after midnight?

The Witness: Let me check this once more. Pacific Standard Time would be three minutes after midnight, and that would be January 19th.

The Court: That is January 19th, our calendar day, is that right.

The Witness: Yes, sir.

The Court: 1952?

The Witness: Yes, sir.

The Court: What is it that they show?

The Witness: There is a message from the flight, the captain of the flight: "No. 1 engine feathered. Proceeding to Sandspit. Captain, NWA 324."

The Court: Being over Sandspit at three minutes after midnight—what is it that shows that? Is it a message?

The Witness: It is a message filing time on the message from the aircraft.

The Court: Do you not know who it is from? Is there anything to indicate who it is from, the flight captain or who? [685]

(Testimony of Dudley S. Cox.)

The Witness: The message simply states it is from the captain of Northwest 324.

The Court: That means the flight captain?

The Witness: Yes, sir.

The Court: The aircraft over Sandspit at three minutes after midnight, is that right?

The Witness: No, sir. You asked, I thought, what time it was abeam Sitka. I said three minutes after midnight. He estimated over Sandspit at 0928, which would be 1:28 Pacific Standard Time.

The Court: A message from the flight captain that the aircraft was over Sandspit?

The Witness: Estimating over Sandspit at 1:28 A.M.

Q. When was that message sent?

A. That was sent when he was abeam or southwest of Annette Island.

Q. Then what time did he send the message estimating over Sandspit at 1:28?

A. At what time?

Q. At what time was that message sent?

A. That was sent at 0903. That would be 1:03 A.M. on the 19th.

The Court: Was that an estimate of probable arrival over Sandspit?

The Witness: Yes, sir. [686]

The Court: I thought you previously indicated you had a message saying when the plane actually was over Sandspit.

The Witness: No, sir, I said the captain's estimate of his time over Sandspit.

(Testimony of Dudley S. Cox.)

The Court: Have you any message there or record as a part of that exhibit which you now have, A-5, which shows the time when it was over Sandspit?

The Witness: The only message of any significance was when the aircraft was in the area of Sandspit, and there was a message to Seattle from Annette Island advising Northwest 324 landing at Sandspit. That was at 0943, at 1:43, 15 minutes after his estimate of being over the station.

The Court: How long was it before the last message received from the airplane indicating where it was?

The Witness: That was forty minutes later.

Mr. Riley: If the Court please, may I interrupt a moment? Mr. Cox, what time did the aircraft report it lost its engine when it was abeam Sitka?

The Witness: That was three minutes after midnight.

Mr. Riley: He reported then he was proceeding to Sandspit?

The Witness: That is correct.

Mr. Riley: He reached Sandspit at 1:48, is that correct? [687]

The Witness: No, sir, that is not the way I have it from the message.

The Court: You may proceed, with a greater rapidity than the Court's questioning.

Q. Does the flight position log represent all the communications between the plane and the ground?

A. Not necessarily so, no, sir.

(Testimony of Dudley S. Cox.)

Q. What other communications are there?

A. Landing clearance; tower clearance; takeoff clearance; a time given to the local operator of his departing station, for example, tower clearance. There would be quite a bit of communication with the tower.

Q. Do you know whether or not all messages sent from an airplane are relayed by the CAA system, or not?

A. All messages sent from the aircraft of an operational nature. There is a procedure set up that such operational messages shall be forwarded without the aircraft captain addressing the message. He doesn't have to address these operational messages.

The Court: Is it or is it not depending on the priority of the message? In other words, if you have two messages at the same moment, you would have to choose which one to send first?

The Witness: Regulations prescribe the priority of those. [688]

The Court: Would you look at that record and tell the Court, if you can, what it indicates to you was the time of the arrival, actual time of arrival, of that aircraft over Sandspit?

The Witness: This does not indicate specifically the time.

The Court: What is the nearest thing to it, as best you can inform yourself by looking at that exhibit?

The Witness: His estimate of his time over, and

(Testimony of Dudley S. Cox.)

the further message at fifteen minutes later saying he was in the vicinity and expecting to land.

The Court: What time was that?

The Witness: That was at 9:43, at 1:43 A.M.

The Court: At 1:43 A.M., the captain messaged that he was what?

The Witness: It was a message at 1:43 to Seattle from some source of information, probably the radio operator at Sandspit, that the airplane was landing at Sandspit, at 1:28, which was the captain's estimate when he was over southwest Annette.

The Court: Did somebody at Sandspit at 1:43 message to Seattle that the airplane was over Sandspit?

The Witness: That is our——

The Court: Is that your information from that exhibit?

The Witness: That is the only message here that says—— [689]

The Court: You may proceed.

Q. Do you know whether or not the flight had had clearance in order to land at Sandspit?

A. Well, he must have clearance to land there, yes, sir.

Q. Are there communications between the flight and the Sandspit radio control?

A. Yes, sir, there are communications checking the weather and wind.

Q. From that exhibit which you have in front of you, will you examine the messages from the

(Testimony of Dudley S. Cox.)

flight and the messages from the Seattle flight superintendent and tell me what significance those messages have in terms of such collaboration between those two with respect to landing at Sandspit?

The Court: Suspend your answer to that question until after lunch.

(Brief discussion re length of trial.)

The Court: The Court is recessed until 1:30.

(Recess.)

The Court: You may proceed.

Mr. Koch: I will strike the question before recess.

Q. Mr. Cox, when Flight 324 of January 17th feathered the No. 1 engine, did an emergency arise under Northwest Airlines and Civil Aeronautics Administration regulations?

A. Yes, sir, a potential emergency arose.

Q. Are there CAA or Northwest Airlines [690] regulations relative to landing which become applicable upon feathering an engine? A. Yes, sir.

Q. What were they at that time?

A. That the aircraft shall land at the nearest suitable airport.

Q. Referring to Plaintiffs' Exhibit 21, the third page under the heading "Company policy for Engine-out Operation", is that paragraph applicable under the circumstances when this aircraft lost one engine? A. Yes, sir.

Q. Would the provisions of the company policy for engine-out operation appearing on page 3 of

(Testimony of Dudley S. Cox.)

Plaintiffs' Exhibit 21 be applicable to a potential emergency only, or also to an actual emergency?

A. To a potential emergency.

Q. Not to an actual emergency?

A. Not to an actual emergency.

Q. Would you say that an actual emergency did or did not exist when the No. 1 engine on Flight 324 of the 17th was feathered?

A. An actual emergency did not exist.

Q. Referring again to company policy for engine-out operation appearing on page 3 of Plaintiffs' Exhibit 21, subpoint b, did the pilot know the altitude of the aircraft and the aircraft weight and usable fuel at the time of stoppage? [691]

A. Yes, sir, he did.

Q. Did the Seattle flight superintendent have that information? A. Yes, sir.

Mr. Riley: I object to that. That is not the best evidence. Mr. Smith is still here and can testify to that.

The Court: That is sustained.

Mr. Koch: That is an exhibit in the case, your Honor, and we are referring to exactly what was in the flight plan. There is already testimony that the flight plan was approved specifically by the pilot, the Seattle and the Anchorage flight superintendents.

The Court: In view of the form of the question and the subject matter of the question, the objection is sustained.

(Testimony of Dudley S. Cox.)

Mr. Koch: May I rephrase the question, your Honor?

The Court: You may.

Q. Do you know whether or not the Seattle flight superintendent had knowledge with respect to the altitude, the aircraft weight and the fuel on board at the time the engine was feathered?

Mr. Riley: I object, for the same reasons. He can only base such a conclusion on something which has been told to him from Mr. Smith.

The Court: You can ask him what was done to give the knowledge. You cannot state whether he had the knowledge or not. [692]

Mr. Koch: I will rephrase the question.

Q. Do you know whether or not there was available to the Seattle flight superintendent information with respect to the altitude, the aircraft weight and the usable fuel on board at the time the No. 1 engine was feathered?

The Court: Answer yes or no.

A. Yes, sir.

Q. What was the source of that information?

A. The aircraft altitude, by a series of radio messages from the airplane.

The Court: To whom?

The Witness: To the Civil Air radio stations, and relayed from that point to the Seattle dispatch office. The aircraft weight——

The Court: Was that man there one of those sources?

(Testimony of Dudley S. Cox.)

The Witness: Yes, sir. He was at the Seattle dispatch office.

The Court: Was he on duty at the time, to your knowledge?

The Witness: Yes, sir, he was on duty. The aircraft weight, by calculation extracting the total gross weight at takeoff plus the hours in the air at which fuel is burned in pounds. Everyone has these tabular forms or power charts so that the air-[693] craft's actual weight, or approximately so, is arrived at by the dispatcher, and that is his responsibility and duty to keep aware of those things.

Q. Is usable fuel on board subject to the same type of calculation?

A. Subject to the same type of calculation.

Q. Do you know whether or not the Seattle flight superintendent had information available to him in Seattle with respect to weather conditions and the terrain en route and the possible landing points?

A. Yes, sir, he did.

Q. Did the pilot have such information available to him?

A. Yes, sir. He had a forecast at the flight's origination point and additional forecast transmitted to him from the Seattle meteorological, Northwest meteorological service in Seattle to the airplane, transmitted by radio.

Q. What was the source of the flight superintendent's information, available information on that point?

A. It was from the hourly weather sequences available to him from the CAA circuits in the of-

(Testimony of Dudley S. Cox.)

fice at Seattle. They are on teletype and they come in each hour, plus the Northwest meteorological station is adjacent to—in the same office with the dispatcher.

Q. Was there also a weather forecast on the flight plan?

A. Yes, sir, there was a weather forecast on the flight plan. [694]

Q. Was that available to the Seattle flight superintendent?

A. Yes, sir, because part of it was from the same circuits, the same source.

Q. What was the source of information in sub-point d with respect to air traffic congestion en route and the various available airports?

A. That was known to both. That was known to the pilot, and actually, it isn't applicable to any great extent. It was a known factor, yes, sir.

Q. From what source?

A. From air route traffic control. There is a section from the Vancouver center in the Seattle office, as well as the CAA circuits here in Seattle.

Q. With respect to point e, did the pilot have familiarity with the airport and surrounding terrain?

Mr. Riley: I object. Again, he is calling for something he can't know about.

The Court: The objection is sustained.

Q. Did the Seattle flight superintendent have available to him such information as pertinent to

(Testimony of Dudley S. Cox.)

the pilot's familiarity with the airport and surrounding terrain?

Mr. Riley: I am going to object again. I hate to keep making objection after objection, but this is not the best evidence. The flight superintendent should testify to whether or not this information was available. [695]

The Court: To him?

Mr. Riley: Yes, and he is asking Mr. Cox if the flight superintendent knew.

Mr. Koch: Not if he knew.

The Court: You may ask him in what way it was made available. The objection is sustained for the time being. You may ask him what the availability means were.

Q. What was the nature of the information with respect to the pilot's familiarity with the airport and surrounding terrain which was available to the flight superintendent in Seattle?

The Court: If you know.

A. Yes, sir. That he was qualified over the route under the Civil Air regulations and could not be dispatched over the route unless he was qualified as a captain, first pilot, over the route, and being so qualified, it is necessary that he know the terrain and the facilities on the route, and the dispatcher, knowing that he is qualified——

The Court: The objection goes to this statement, and it is sustained with reference to what he knew. You do not know he knew. He may have been over the route a thousand times and might not know

(Testimony of Dudley S. Cox.)

any more about this particular spot than I know now or I knew before this case began.

Mr. Koch: Is the answer with respect to the [696] sources of information permitted to stand?

The Court: All of it will stand except where he said something about what he knew or might have known.

Q. With respect to point f, what was the source of information with respect to airport safety facilities, crash and fire-fighting equipment, and the availability of such information to the pilot and the Seattle flight superintendent?

A. There was no fire-fighting and crash equipment at any station between Seattle and Anchorage. There was a Coast Guard sub-station at Annette Island. That information was known to both parties.

Q. How do you know that?

A. From the assembly of information prepared by Northwest Airlines on all airports and which the dispatcher—this is available to the dispatcher and the pilot as to what the facilities are at each airport.

Q. Is it contained in Northwest Airlines operations manuals?

A. Yes, sir, I believe that is correct.

Q. Are copies of Northwest Airlines operations manuals containing such information kept aboard Northwest aircraft?

A. Certain manuals are kept aboard Northwest Airlines aircraft, yes, sir.

Q. Would manuals containing the information

(Testimony of Dudley S. Cox.)

with respect to crash and fire-fighting equipment be kept aboard Northwest Airlines aircraft? [697]

A. No, sir, I don't believe they would be kept aboard the aircraft. They would be in the possession of the pilot.

Q. Do you mean that they would be on the plane, but in the pilot's possession?

A. That is correct. The manuals are issued to the pilots and he has these manuals in his personal possession and is required to carry the manuals.

The Court: Suppose he gets on board the plane and finds he doesn't have them, that he changed his jacket before he went aboard and it was in the other garment he took off and not in the pockets of the one substituted for it?

The Witness: The manuals are about so size (indicating) and so thick (indicating).

The Court: Are they ever kept on board, an extra copy of the manuals ever kept aboard the airplane to meet some emergency of the kind I mentioned?

The Witness: No, sir, they are not. There are two pilots, and both have the same manuals aboard.

Q. Are those same manuals in the possession of the flight superintendent at Seattle?

A. Yes, sir.

Q. With respect to subpoint a, the nature of the malfunctioning and possible mechanical difficulties that may be encountered if the flight is continued, was that information known to the pilot? [698]

A. Yes, sir.

(Testimony of Dudley S. Cox.)

Q. Do you know whether or not it was communicated to the Seattle flight superintendent?

A. Yes, sir.

Q. Was it? A. Yes, sir, it was.

Q. Do you know whether or not the Seattle flight superintendent caused additional weather reports and weather forecasts to be transmitted to the flight? A. Yes, sir, he did.

Q. Under subpoint 2 under this heading on page 3, Plaintiffs' Exhibit 21, will you read that sentence?

A. "Upon reaching an agreement with the captain as to which is the nearest suitable airport, the flight superintendent shall clear the flight to that airport. Note: In the event two airports are considered suitable and as safe, clearance shall be made to the nearest in point of time."

Q. With respect to the material you have just read, what was done between the Seattle flight superintendent and the pilot of Flight 324 of the 17th?

Mr. Riley: I would like to object again. This is going into the same matter, asking him what Mr. Smith did, when Mr. Smith is here and can testify better than Mr. Cox as to what he did. [699]

The Court: If he was not there, and did not see a handwritten statement as to the matter, the objection is sustained.

Mr. Koch: I am referring to the exhibit that the witness had before lunch containing all the messages, and those messages outline——

(Testimony of Dudley S. Cox.)

The Court: Those messages show for themselves, and counsel can read that, and if you are asking what is said as part of the contents of that exhibit, you should at least ask him to turn to the exhibit and point out something. Personally, I think the best way to do that is for counsel to do it at the proper time, but I will not deny you the right to do it in the alternative way that I have suggested as proper; namely, that you should ask him to point out what in that exhibit such-and-such, what it is relating to what.

Q. Handing you Exhibit A-5, will you refer to the messages exchanged between the flight and the Seattle flight superintendent bearing on the issue of landing at the nearest suitable airport?

A. Referring to them, yes, sir.

Q. Will you read the messages that apply to his decision?

A. Yes, sir. At 12:03, "Northwest Airlines, No. 1 engine feathered proceeding to Sandspit. Captain, NWA 324." At 12:29, "Northwest 324, oil cooler [700] No. 1 engine broken proceeding to Sandspit."

Message from Seattle at 12:40, "Advise if landing at Sandspit or proceeding to Seattle. Seattle weather okay."

The forecast message at 12:49 giving the amended forecast, terminal forecast your arrival, which gives the weather at Sandspit. Shall I read the weather?

Q. Yes.

A. The Sandspit weather, "2,000 broken overcast occasionally 1,000 overcast, one mile, light

(Testimony of Dudley S. Cox.)

snow. Port Hardy, 3,000 overcast, occasional rain and snow. Annette Island, 1,500 broken, occasionally 700, obscured, one mile, light snow showers. Comox, Pat Bay, 5,000 broken. Seattle-Tacoma, 2,000 broken, 4,000 overcast. Portland, 1,200 overcast.

Q. Are there further messages that bear on this subject?

A. There is an additional message.

Mr. Riley: Would the witness state when that terminal forecast was rendered to Flight 324?

The Witness: Filing time of the message is 12:49 Pacific Standard Time. The message when the flight was over the check point southwest of Annette Island, where he again states, "Estimating Sandspit at 9:28", and that was filed at 9:03. Correction, at 1:03.

Q. What time is that in Pacific Standard Time?

A. 1:03 A.M.

Q. Estimating? [701]

A. Sandspit at 1:28. Then the message noted by the Seattle dispatch office at 1:43, that "Annette advises Northwest 324 landing at Sandspit."

Q. In your opinion, Mr. Cox, did the Seattle flight superintendent clear this flight to Sandspit?

A. Yes, sir. There was an agreement, an acquiescence in the clearance of the flight to Sandspit.

Q. What is the proper procedure to be undertaken if it becomes necessary to feather an engine?

A. The proper procedure for the pilot is to go ahead with the feathering operation, feather the

(Testimony of Dudley S. Cox.)

engine, and notify the nearest dispatch office or nearest control authority, if a dispatch office cannot be reached, that he has feathered the engine and proceeding on.

Q. What is the effect of a broken oil cooler?

A. That is loss of oil in the engine, and the engine will eventually freeze up if it doesn't—it is like a car. If it runs out of oil, the engine will freeze and cause internal damage to the engine.

Q. Could you tell me whether or not it is the function of the oil cooler to cause oil to pass from the cooler to the engine?

A. The function of the cooler itself is to regulate the temperature of the oil which the engine uses, keep it within tolerable limits. [702]

Q. If the oil cooler breaks, what happens to the oil?

A. If it breaks, you start losing oil from the cooler, from the break.

Q. Handing you Plaintiffs' Exhibit 25, do you see a blue ink circle that was put around there by an earlier witness?

A. Yes, sir, I do.

Q. What is inside of that circle?

A. That is the oil cooler housing, the housing of the oil cooler itself.

Q. Where in respect to that oil cooler housing is the No. 1 engine?

A. It is attached to the No. 1 engine, on the lower side of the No. 1 engine power package.

Q. From the pilot's position in the cockpit,

(Testimony of Dudley S. Cox.)

would it be possible to determine whether a loss of oil was due to a broken oil cooler?

A. From the cockpit, you can see this oil cooler, and you can see oil in that vicinity, and if oil is there, you suspect that that is the broken oil cooler line and that is the component parts of the oil cooler are housed inside this housing.

Q. Would you be able to tell what part of the oil cooler was broken?

A. No, sir, you would not.

Q. Are all components of the oil cooler in that oil cooler housing?

A. Are all the components of the oil cooler in the housing?

Q. Yes. A. Yes, sir, they are.

Q. When an oil cooler breaks or becomes unserviceable in flight, is it or is it not necessary at that point to feather the affected engine?

A. Well, it is necessary to feather the engine. Otherwise, you would cause internal damage and possibly, if the engine freezes, there is a fire hazard. Yes, I would say it is necessary. You determine that by the loss of oil that you can see on your gauges.

Q. What was that last comment?

A. You should determine the amount of oil lost and the rapidity with which it was lost from your gauges. If the break was of serious consequence, your oil quantity would go down, and the temperature would go up; and if it was a small break, perhaps you wouldn't feather it, you would live with

(Testimony of Dudley S. Cox.)

the break. You would watch it carefully, of course.

Q. This oil cooler apparently, according to the evidence, was broken around midnight. Would you or would you not be able to see the oil cooler at night?

A. Yes, sir, with the lights that you have available to you on this airplane. You have your own flashlights, wing lights, and an Aldis lamp, which [704] is a plugged in lamp, a strong beam, a lamp about seven or eight or nine inches high, about four inches wide, a very strong and powerful light that can be plugged in the cockpit and used for such purposes, examining the outside of the airplane.

Q. Have you been able to determine whether or not Flight 324 of the 17th was flying at normal speed on four engines, and how it performed on three engines?

A. Yes, sir, I have.

Q. Will you tell what your determination is?

A. Well, I took his flight plan time over the various check points, compared that with the times he was actually over the check points, and found that he was proceeding within very close tolerance of the times that he actually planned the flight, so that, therefore, the flight was proceeding normally on four engines, making good with minor exceptions the times that he planned to make good between the various check points. The only discrepancy that occurred was between Gustavus and Sitka, and there was a loss of seven minutes and he was over Sitka at 12:04, and at 12:03 he

(Testimony of Dudley S. Cox.)

had reported that he had feathered No. 1 engine, and the difficulties that might have been feathering the engine or wind accounted for this seven minutes. From there on, on three engines, he estimated he was over Sitka and southwest Annette, and he estimated his times over the next check point and made good those estimates, and that indicated [705] to me that the airplane was proceeding very normally on three engines. The speeds made good were on the longest leg of that Sitka to southwest Annette. He estimated 55 minutes, and he made that good, 55 minutes between those two check points. His original estimate on four engines was 50 minutes, so I would say that certainly indicated to me that the air plane was not in any trouble further with respect to icing or other drag that might be put on the airplane, and that it was proceeding very normally.

Q. By your remark, do you mean that there was or was not icing on the plane?

A. There may have been icing, but of no significance to slow the airplane down.

Q. Are three engine speeds slower than four engine speeds? A. Yes, sir.

Q. How much slower?

A. Generally 30 knots, perhaps. I would have to refer to power charts to be specific, but it is appreciably slower.

The Court: How many is the total number of knots speed obtained by the efficient use of four motors of the type here involved?

(Testimony of Dudley S. Cox.)

The Witness: His flight plan was about 210 knots per hour.

The Court: Losing one of the four, you lose only 30 of those 210 knots?

The Witness: Not necessarily so. It would be about roughly—in this case, I guess that would be a correct statement. About 180 knots is about the speed he made good under those conditions.

The Court: How much speed would you lose, if you know, if two of the four motors were feathered?

The Witness: Well, sir, I would have to refer to the power charts on that, but you would roughly indicate about 150 knots. I would judge that would be a good estimate.

Q. Is a DC-4 designed to operate on three engines? A. Yes, sir.

Q. What is a NOTAM?

A. That is a notice to airmen.

Q. Who issues a NOTAM?

A. The airport authorities.

Q. Are they communicated to the pilots?

A. They are put on teletype machines and available at various dispatch centers and places where pilots go to prepare their flight plans.

Q. Are they included as part of the flight plan ordinarily? A. Yes, sir, they are.

Q. Was there a NOTAM attached to the flight plan of this flight from Anchorage to Seattle?

A. No, sir, there wasn't. A NOTAM concerning Sandspit, did you say? [707]

(Testimony of Dudley S. Cox.)

Q. Any NOTAM attached to the flight plan when it departed from Anchorage.

A. I haven't got the exhibit, but I don't believe there was.

Q. Handing you the flight plan, Exhibit A-3——

A. No, sir, there is not a NOTAM sheet attached to this clearance.

Q. How is an airman ordinarily apprised of a NOTAM after the departure of his flight?

A. By radio message.

Q. Is there any indication that a NOTAM was issued to this flight? A. No, sir.

The Court: Is it possible that one was issued and that that did not disclose it?

The Witness: It is very possible, but in the local conversations between the pilot and the Sandspit radio operator, it is very likely that he was acquainted with the field conditions, but that does not appear on any record.

The Court: Is it possible some person making up that file failed, either from oversight or any other reason that could have been in his mind, to attach such NOTAM, if one existed?

The Witness: NOTAM's are normally attached to the flight plans and the clearances.

The Court: By whom are they attached? [708]

The Witness: By the dispatcher on duty.

The Court: Suppose the dispatcher on duty lost his copy and didn't have it when he was making up the file.

The Witness: They are mimeographed. There's

(Testimony of Dudley S. Cox.)

a whole file in the office of numbers of copies. It's a matter of taking one copy off and attaching that to the flight plan.

The Court: Where would this come from. What airport?

The Witness: The NOTAM's would be picked up in Anchorage when he filed his clearance and his flight plan.

Q. Would a flight proceeding non-stop according to flight plan from Anchorage to Seattle or McChord Field, would a Sandspit NOTAM be normally attached, if one existed?

A. If it were pertinent, it would probably be attached, if it existed. May I explain further that if there is no change in the facility, if the radio range is operating, if there is no change from the previous NOTAM issued, there would be no mention of it, if the conditions were apparently the same.

Q. Will you explain the categories of landing fields as they are classified by Northwest Airlines regulations?

A. There is terminal airports, alternate airports, refueling airports, emergency airports.

The Court: Southward bound, where is the next airport large enough to accommodate the landing of the plane used on Flight 324? [709]

The Witness: From Sandspit, you mean?

The Court: Yes.

The Witness: Port Hardy, then Comox.

The Court: How far is that away?

The Witness: About 215 miles.

(Testimony of Dudley S. Cox.)

The Court: Is that the nearest one next to Sandspit?

The Witness: No, sir, that is southbound. The next one east of Sandspit is Annette Island.

The Court: How far away?

The Witness: That is about 60 or 70 miles, I think.

The Court: How many minutes flight?

The Witness: On three engines, that would be about 15 or 20 minutes, about 20 minutes.

The Court: Would you be afraid to attempt that much of a flight after you had decided for some reason, no matter what, that a landing was advisable?

The Witness: Having lost one engine and decided not to land at Sandspit, would I——

The Court: No, if Sandspit was available and Annette Island was available so far as being open to landings is concerned, would it be advisable to on three engines try to make it back to Annette after you decided a landing was desirable?

The Witness: Yes, sir, it would be perfectly advisable.

The Court: Which is the better airport, if you know? [710]

The Witness: Well, sir, pilots, myself included—I see Sandspit frequently. I fly over Sandspit every day. I don't see Annette every day. I see that maybe once a year. I am well familiar with Sandspit, since I see it on regular flights. I would have to leave my route to go to Annette.

(Testimony of Dudley S. Cox.)

The Court: How far is Annette from Elmen-dorf?

The Witness: About 500 or 600 miles.

Mr. Koch: Your Honor, with regard to the Court's inquiry, the evidence will be produced within the next day or so that will show Annette was not available, it was weathered in, and so we did not have that choice that the Court is inquiring about.

Mr. Riley: Are you testifying, Mr. Koch? I think Mr. Cox can testify from the weather reports and NOTAM's in the record as to what the conditions were at that time.

The Court: What do you see from the exhibit or any information contained therein that would make any of these airports not available for landing at that time, if the plane is there ready to land?

The Witness: The weather at Annette Island was forecast to be worse than it was at Sandspit, and all other things being equal, the approach procedure at Sandspit is a little easier. You don't have the terrain to contend with that you do at Annette [711] Island. The runways at Annette are longer, but the weather there was forecast to be 1,500, occasionally 700. The weather at Sandspit was 2,000, occasionally 1,000, a difference of 300 feet.

The Court: Isn't Annette ordinarily a favored airport so far as landing planes out of bad weather is concerned? Isn't it regarded as a pretty attractive emergency landing place?

The Witness: Well, sir, I think we have had

(Testimony of Dudley S. Cox.)

just about as many airplanes in Sandspit that have been interrupted in their flight as we have Annette Island.

The Court: Was Annette built for the special purpose of accommodating these Oriental flights?

The Witness: No, sir, it wasn't. It was a military airport, originally built during the war, expanded during the war for defense purposes.

The Court: Elmendorf and Shemya are favored on this Oriental flight, is that true?

The Witness: Yes, sir. Elmendorf is a military airport, Shemya was a military airport.

The Court: Both were built as such? Both permitted the defendant to use them in these Oriental flights, have they not?

The Witness: Yes, sir, at that time.

The Court: What other airfields were there available if a plane is close enough to them to use them [712] between Seattle and Elmendorf Field?

The Witness: There is an airport at Cordova, an airport at Yakutat, Yakutat, Gustavus, Port Hardy, Comox, Patricia Bay, which is Victoria, Everett, Paine Field, and Seattle-Tacoma.

Q. How was Annette Island classified, what kind of airport?

A. For our operations, it was classified as a refueling airport.

Q. How was Sandspit classified?

A. As an emergency airport.

Q. Does Northwest have the right to land at Sandspit?

A. Yes, sir.

(Testimony of Dudley S. Cox.)

Q. Was it cleared to land at these other airports that you have just mentioned southbound from Sandspit? A. Was it cleared?

Q. Yes, sir.

A. It wasn't cleared to these other points.

Q. I don't mean cleared in the sense that this flight was cleared to land there, but did Northwest Airlines have the right to land at these various places? A. Yes, sir.

Q. What governs the determination as to whether to make a landing at a refueling stop or an emergency stop?

A. Well, principally it is a matter of familiarity with the airport, its facilities, the terrain surrounding the airport, the weather that you would [713] encounter, whether the approach procedure could be effected with the minimum amount of trouble and hazard to the plane and its passengers. Those questions would be in the mind of the pilot.

Q. Did any of the airports between Anchorage and Seattle have fire-fighting equipment or emergency rescue equipment?

A. There was no fire-fighting equipment or crash equipment. There was a Coast Guard station at Annette Island, where they had some facilities.

Q. On the Annette field and any other fields between Anchorage and Seattle, what fire-fighting or emergency rescue equipment existed?

A. There was no fire-fighting equipment between Anchorage and Seattle.

(Testimony of Dudley S. Cox.)

Q. Was there any emergency rescue equipment on any airfield between Anchorage and Seattle?

A. No, sir, there wasn't.

The Court: You are not excluding from your last two answers Sandspit?

The Witness: No, sir.

The Court: What you say applies to Sandspit the same as any other, does it or does it not?

The Witness: Yes, sir, that is true.

Q. Did any of these airfields have Air Sea Rescue facilities?

A. There was a Coast Guard station at [714] Annette Island. I am not sure whether that was designated as an Air Sea Rescue unit at this particular time. It was there and had been there for some time, and I couldn't quite say that it is an Air Sea Rescue. It is a Rescue Coordination Center, and I think it was concerned with both surfaces, and there was a Coast Guard surface station in that vicinity that sometimes was based at Juneau, and the harbor at Ketchikan, primarily for the purpose of fishing boats and that sort of thing, and they also had one or two aircraft. One was an amphibian, a Grumman, I believe, that was based at Annette.

Q. You mentioned facilities at Ketchikan and Juneau. Were there airports there?

A. Not at Ketchikan. There is a small airport at Juneau.

Q. Was it suitable for landing a DC-4?

(Testimony of Dudley S. Cox.)

A. No, sir. It could have been, but the airport serving Juneau is Gustavus.

Q. Should this have been taken into consideration, the availability of this Coast Guard station near Annette Island, in the pilot's making his decision where to go?

A. Not necessarily. He wasn't concerned with ditching the airplane.

Q. Turn to the page among the sheets in Plaintiffs' Exhibit 31 entitled "Emergency range procedure", is that correct?

A. That is correct, yes, sir. [715]

Q. Will you describe this extract from what has been put in evidence as a Northwest operations manual page?

A. Describe in detail the procedure?

Q. Well, I will ask you a question. Does this manual page give landing instructions and range procedure at Sandspit?

A. Yes, sir, it does.

Q. How does this manual page designate the Sandspit airport?

A. Well, it designates the Sandspit airport as an emergency airport.

Q. Is this page before you an extract from the Northwest manual that was in force at the time of the accident?

A. Yes, sir, it is.

Q. Is this manual issued to and in the possession of all Northwest Airlines pilots?

A. Yes, sir, it is.

Q. Now, will you describe the landing procedure specified by that manual page for Sandspit?

(Testimony of Dudley S. Cox.)

A. Well, this is a plot of the radio range with its beams extending in four directions, northeast, northwest, southeast, southwest, also a profile of the aircraft's path through the air as it makes its instrument approach at Sandspit. It states that the approach shall be made on the southeast leg of the radio range, making his procedure turn to the east at a minimum altitude of 2500 feet, crossing the radio range on his final approach at 1500 feet, [716] and on the reverse side of the page, gives the minimums applicable which the pilot has to observe. Straight in landing is 801 for day, and night 802, applicable to DC-4, B-377 aircraft.

The Court: Ask him another question.

Q. From your investigation, do you know whether or not at the time Flight 324 came in for a landing at Sandspit, what the wind conditions were?

A. From the weather observation taken at 9:30, or at 1:30, and subsequent observation taken immediately after the accident, the wind was from the southwest, I believe, around 10 or 15 miles an hour. I couldn't be exact on that.

Q. Do Northwest regulations and CAA regulations direct landings either to or into the wind?

A. Yes, sir, that is a requirement.

Q. From what position, then, would this flight have to approach the field?

A. It had to approach from north to south.

Q. What minimum altitudes had to be maintained, according to this range procedure?

(Testimony of Dudley S. Cox.)

A. He is not allowed to descend below 800 feet until he is in a position to make his approach and landings to the airport. He has to maintain that. That is his minimum under which he cannot descend until he is in a position to make his landing.

Q. Does this range procedure require or does it not require visual sighting of the field?

A. He can't descend below 800 feet unless he sees the airport plainly and can execute his landing. He must have visual observation in order to land.

Q. At what point in terms of distance from the field would the pilot be at the point where he would be 800 feet or higher from the ground and able to see the field when he came in to land?

A. He would be somewhere between—in time, you say?

Q. No, in miles.

A. He would be some place between—from two miles to five miles. I am thinking in terms of air speed, at 120 miles an hour or two miles per minute, and the descent rate that he would have to descend in order to make that good. That was the way I was basing my answer, so I would say two to six miles.

Q. From five or six miles, would he still be able to see the airport?

A. Yes, sir, he could see the airport from five or six miles, above 800 feet altitude.

Q. What if under existing conditions the visi-

(Testimony of Dudley S. Cox.)

bility was not that good, what would the pilot be required to do?

A. The pilot would have to maintain 800 feet or above until such time as he saw the airport, [718] and that would be two miles. That is his minimum.

Q. Does this range procedure chart set forth minimums in terms of distance for sighting the airport before coming in?

A. Yes, sir, it does. Two miles visibility is the minimum with which he can land there.

Q. From two miles, and at a minimum altitude of 800 feet, what type of landing would this make possible in terms of descending within the two miles or so range that the pilot would have? Is that a space enough for a gradual landing?

A. He would have to descend from two miles at 120 miles an hour. He would have to descend 800 feet a minute in order to get into the airport. That is not a long, low, dragged-out approach. It is a fairly steep angle, I'd say, at 800 feet a minute, whatever angle that might be.

Q. Would this result in a slow or a fast landing speed?

A. Landing speed—it would result in a fairly fast descent, and then flare out, and touch down would be at speeds which you would normally touch down.

Q. I can't hear you.

A. It would be a fairly steep descent, that is correct. However, the speed at which the wheels

(Testimony of Dudley S. Cox.)

get on the ground would be still at or above the normal, in the vicinity of the normal landing touchdown speeds.

Q. In your opinion, would a rather rapid [719] descent and a noticeable flare out characterize a normal landing at Sandspit at night?

A. Yes, sir, I would say it would.

Q. Is there an advantage to having the approach ceiling high and the landing at slightly above normal speed when a plane is coming in on three engines?

A. Yes, sir, I would say that would be a normal procedure.

Q. Why?

A. The pilot has to ascertain that he is not going to have to take off again and go around. It would be a precautionary move to hold a little altitude.

Q. After this accident, Mr. Cox, did Northwest Airlines conduct tests in which the conditions of this accident were simulated? A. Yes, sir.

Mr. Riley: If the Court please, at this point I will object, because I know what Mr. Cox is going to testify to, and the reports which he made, the tests he made, were contained in Plaintiffs' Exhibit 28, which was rejected because they came from the Civil Aeronautics Board file, and that test Mr. Cox made was specified in that.

(Further argument between counsel.)

The Court: The objection is sustained. You may

(Testimony of Dudley S. Cox.)

ask him what he knows about any subject that is [720] within his personal knowledge. Things that he may have done by way of making certificates or reports will not be put in, because there is no question of contradiction of some oral statement by any written report or statement. If on cross examination of this witness he had testified orally to some fact, and the plaintiff on cross examination had access to a report or an affidavit or a written statement that he made, or even an oral statement that he made on some other occasion, he could be confronted with that, and if there was any inconsistency, for the purpose only of affecting his credibility it might be receivable in evidence, but so far as this instance is concerned, the objection is sustained.

Mr. Koch: Your Honor, is it the Court's view that I have asked about a report? I have not done so, your Honor.

The Court: No, it is not. I was discussing, in a way that I had, perhaps, no justification in doing, under what circumstances such a thing might be admissible. Those circumstances are not presented here. The objection is sustained. I say to defendant's counsel, as to further action, that any exhibit or part of exhibit or part of a report which you may succeed in getting in as a part of defendant's case in chief may open up the question further of admissibility of offered exhibits which were a part of or identified as a part of plaintiffs' case in chief. [721] You may proceed.

(Testimony of Dudley S. Cox.)

Q. Mr. Cox, did you take part in the investigation and inspection of Sandspit?

A. Yes, sir, I was present at Sandspit and assisted the Civil Aeronautics Board and Department of Transport in their investigations.

Q. Did your inspection go into the problem of whether Northwest Flight 324 of the 17th had been able to accelerate properly and to reach sufficient takeoff speed? A. Yes, sir.

Q. Can you offer any further explanation of your investigation at Sandspit?

A. I examined the entire length of the runway on both sides in the snow, and the obstructions at the end, the snowbanks, were two or three feet high, and I found no tracks of any aircraft adjacent to or close to the sides of the snowbank at either side of the runway, which is about 10 feet wide or thereabouts. The runway was plowed snow and plowed inside the boundary lights, and there were no tracks close to, indicating an airplane had got close to the snow banks, nor were there any marks on the obstructions at the end of the runway indicating an airplane had taken off or dragged over those obstructions. There were no marks at all, so I concluded that no airplane in the preceding 24 to 36 hours, as far as we could [722] tell, and we checked the snow, the accumulation of snow, whether it snowed after that. It wasn't enough—you could see, discern tracks of an aircraft. We saw none. We concluded, therefore, that the airplane did accelerate properly and take

(Testimony of Dudley S. Cox.)

off properly, and that it was certainly under control. If he did not have minimum control speed, he would have run off in the snowbanks on either side, or obstructions at the end of the field, so we could only conclude it was under control, had accelerated properly, and taken off.

Q. Do I understand your testimony to be that the fact that it didn't run into the snowbanks——

The Court: I wish you would ask him.

Q. Does maintaining a directional control on a runway bear a relationship to normal acceleration?

A. Well, yes, sir. That is correct, it does bear some relation. If the plane——

The Court: That is sufficient.

Q. Do you know whether or not the plane attempted to take off from the Sandspit runway?

A. Yes, sir. He did attempt to take off. It did take off from the Sandspit runway.

Q. Do you know whether or not the plane gained air speed?

A. I concluded that it did gain air speed from the fact that it got in the air and was flying. [723]

Q. Is there a fence at the end of the runway?

A. Yes, sir. It isn't a fence, there is an obstruction consisting of a snowbank and things that they plowed off the runway and logs, a few things like that, that I judge to be three or four feet high.

Q. What end of the runway was that?

A. That was on the south end of the runway.

Q. Is that the direction in which the pilot was landing?

(Testimony of Dudley S. Cox.)

A. Yes, sir, that is the direction he was landing.

Q. Did the pilot clear that obstruction?

A. Yes, sir. We saw no marks of any aircraft in that obstruction.

The Court: Does that obstruction perform a service to the pilot taking the plane aloft from the airstrip?

The Witness: I didn't understand.

The Court: Does that obstruction just described by you serve a useful or any other purpose?

The Witness: No, sir.

Q. What is the minimum speed at which a DC-4 on three engines, loaded as this plane was loaded, must attain in order to get into the air?

A. I think about 105 knots, around 100 knots to 105 knots, somewhere in that vicinity.

Q. From your investigation, were you able to determine whether or not the pilot's decision to [724] attempt a takeoff after landing at Sandspit was a reasonable one?

A. Faced with whatever difficulties he had, it was perfectly reasonable.

Q. What do you base your judgment upon?

A. Well, that there was no particular problem. If, for instance, you land on an airport and decide that something is going to happen or does happen or influences your decision to abort the landing, you go around again, even though you are fairly close to land or have touched down. There is no reason not to expect to fly off again.

Q. What is the length of the runway?

(Testimony of Dudley S. Cox.)

A. It is 5,150 feet.

Q. What is the width between the snowbanks?

A. Well, I thought there was about 115 to 120 feet between the snowbanks.

Q. What direction was the wind blowing?

A. From the southwest.

Q. At what speed?

A. As nearly as I can recall, 10 to 15 knots.

Q. Did the pilot, in your judgment, have a decision with respect to whether or not the plane could be brought to a safe stop on the runway?

A. You are asking for my opinion?

Q. Yes.

A. In my opinion, he may have had some such [725] fear that he could not bring the airplane to a safe stop, or there must have been other difficulties. In my opinion, that was one of the factors influencing his decision to go around.

The Court: What is that factor?

The Witness: Whether he could bring the airplane to a safe stop, and I said that that was undoubtedly one of the factors that influenced his decision to go around.

The Court: What fact was there about that known to you which might have given him trouble, if any? State any fact you know of which could have been associated with his concern on that point.

The Witness: That he landed fairly far down the runway and ran along the ground, and the fact that as we stood at one end of the runway, the lights

(Testimony of Dudley S. Cox.)

on the other end of the runway were not entirely visible, and——

The Court: Why?

The Witness: There is a bulge—there is a slight elevation in the middle of the runway. The flare pots that were lighted that night could have been—he couldn't have seen all of them at the far end of the runway.

The Court: Did that obstruction you previously referred to have any part in this?

The Witness: No, sir, it didn't.

The Court: Could a plane run on the ground [726] farther without that obstruction than it could with it on this airstrip?

The Witness: Yes, sir. This obstruction is off the end of the runway, and he must be clear of the runway.

The Court: Suppose he isn't?

The Witness: Then if he hasn't attained flying speed, he will hit the thing.

The Court: If it weren't there, do you suppose there would be more or less danger of the plane being wrecked than the condition with the obstruction there?

The Witness: There is always that possibility, if there is an obstruction there you might hit it, yes.

The Court: In other words, that obstruction might conceivably cause a careful pilot to try to get the plane up more quickly, maybe too quickly

(Testimony of Dudley S. Cox.)

for the distance involved, than might otherwise be the case?

The Witness: Yes, sir, that is true.

Q. Did the snowbanks on each side of the runway, in your opinion, constitute an obstruction?

A. Under the circumstances, the closeness of the snowbanks on either side meant that he had to maintain directional control with closer tolerance than if there were no obstructions. If there were no snowbanks and he veers one way or the other, he will not hit anything; but the snowbank is there and he veers one way or the other, he is [727] going to knock the prop off or otherwise wreck the airplane, cause damage.

Q. What was the surface of the ground at the time?

A. It was snow-covered.

Q. \ How deep?

A. Three or four or five inches, I believe.

Q. What was the temperature?

A. It was about freezing, about 33 or 34, I believe.

Q. Would those ground conditions and the wind conditions and the snowbanks on either side of the runway be factors that the pilot would consider as far as landing, as far as bringing the plane to a safe stop is concerned?

A. Well, certainly the temperature is a factor, with a snow-covered runway, since that in effect puts a little water on top the snow, which makes braking pretty difficult. The cross wind condition means he has to exercise brake control and nose

(Testimony of Dudley S. Cox.)

wheel steering in order to maintain a directional control, and certainly the nearness of the snow-banks complicates the problem, so those are factors that certainly merit attention on the part of the pilot.

Q. Would the unbalanced power, that is, the fact there was only one engine on the left side of the plane, have anything to do with stopping the plane?

A. That would create a difference in thrust, not the same as the thrust on the other side where there [728] are two motors turning up and only one on the left side, and there is a difference in thrust between the two sides of the airplane.

Q. How could the pilot account for that difference in thrust?

A. By braking or by nose wheel steering, or by the use of other motors, either advancing the throttle or pulling the throttle off, balancing, juggling the power, in other words.

Q. With the engine missing on the left side, what braking would be involved in order to maintain directional control?

A. There would be more drag on the left side, under those conditions.

Q. So you would apply left hand or right hand brake?

A. You would apply right hand brake, since the airplane tends to go to the left, the drag set up.

Q. In view of the circumstances that confronted

(Testimony of Dudley S. Cox.)

the pilot, in your opinion, was a landing accident a probability?

A. Well, in my opinion, yes.

Q. Is a DC-4 built to take off on three engines under the weight and load that this plane had at that time?

A. Is it built for that purpose?

Q. Is it built so as to be able to do that?

A. It can be done, yes, sir.

Q. Would you classify it as an uncommon practice or as something that could reasonably be counted upon?

A. As a practice, it is uncommon. It is done. In our checking of pilots, we have them make [729] three engine takeoffs from a standing start, where they are sitting at the end of the runway. We take away one engine, don't feather the engine, leave the prop turning over, and have them take off on three engines.

Q. If the other three engines function in a normal manner, will the takeoff be safely made?

Mr. Riley: Mr. Koch has been consistently leading the witness. As long as he is helping our case, I don't mind, but it seems to me he is going too far in his leading at this point.

Mr. Koch: I am asking for this man's opinion. He is an expert by any standard the Court would impose, and this morning and yesterday Mr. Riley asked him complicated, lengthy hypothetical questions, eliciting his opinion, and with the death of all the members of the crew, we don't have any-

(Testimony of Dudley S. Cox.)

thing except the opinion of experts on certain phases.

The Court: You can establish the conditions of the question sufficiently, and then ask him if he has an opinion on it. Then ask him to state his opinion. That is all there is to it. It should be done in that fashion. Read the question.

(Last question read by reporter.)

Mr. Koch: I hadn't finished when Mr. Riley interrupted.

The Court: The objection is overruled. [730]

A. Yes, sir, in my opinion it can be safely made.

(CAR interpretations marked Defendant's Exhibit A-23 for identification.)

The Court: What is the subject or heading of that paper?

The Witness: It is CAR interpretations.

The Court: What does CAR mean?

The Witness: Civil Air Regulation.

Q. Will you identify the exhibit before you?

A. Yes, sir. This is a bulletin issued to all flight operations personnel from my office, and the subject is CAR interpretations, that is, Civil Air Regulations interpretations, and the policy concerning those interpretations.

The Court: Whose policy?

The Witness: Northwest Airlines policy.

Q. When was that dated?

A. March 16, 1951.

Q. Was that bulletin in force at the time of this accident? Was it still applicable?

(Testimony of Dudley S. Cox.)

A. Yes, sir. The bulletin was—extracts were put into various manuals. The bulletin itself was still in effect, yes, sir.

Q. Can you summarize briefly what the bulletin deals with?

The Court: What is the prominent subject matter dealt with in the bulletin? [731]

A. It actually is an attempt to elaborate and to explain the company's position with respect to the Civil Air Regulations and the observance of those regulations, as well as company regulations.

The Court: On what subjects?

The Witness: On flight operations. Perhaps if I could read——

The Court: From the point of view of passenger safety or cargo handling or what?

The Witness: From the point of view of flight operations and safety, flight safety, flight practices, which in turn is the safety of passengers and the occupants of the flights.

The Court: That is sufficient.

Q. Is one of the subjects covered by that bulletin the subject of conduct by the pilot in the case of a three engine operation, that is, losing one engine on a four engine flight?

The Court: You may look at it for a reasonable time and see what your answer should be.

A. Yes, sir. There is part of the bulletin that goes into the three engine operation.

Q. Does it set forth the interpretation by Northwest Airlines?

(Testimony of Dudley S. Cox.)

The Court: Ask him if there is any interpretation about some subject.

Q. Is there an interpretation of that, of what shall be the [732] controlling considerations of the pilot in the event of a three engine operation?

A. Yes, sir.

Mr. Koch: I will offer it in evidence, your Honor.

The Court: Did you or did you not mean in the event of an operation of a DC-3, or do you mean relating to the situation where the number of engines has been reduced to three, if you know?

The Witness: Where the four engine airplane has lost one engine or had one engine stopped.

The Court: This deals with that situation, as to the conduct of the pilot?

The Witness: Yes, sir.

The Court: Are you certain that it does deal with that subject? Will you look at it again?

The Witness: Yes, sir.

The Court: Will you state the page or other reference to that information?

The Witness: Page 4, mechanical interruptions.

The Court: That is where the subject discussion starts, does it? That is sufficient. Let opposing counsel see the material.

Mr. Riley: I can state my position, because this morning Mr. Koch objected to evidence on behalf of the plaintiff which had to do with three engine operations, [733] and Mr. Cox stated that was the only manual provision that the airline had, was

(Testimony of Dudley S. Cox.)

three engine ferry operations, and now we have this material.

The Court: It may be that if the Court receives this, it might occasion the establishment of a further basis for the admission of the document which earlier today was rejected.

Mr. Koch: Your Honor, the document which was rejected today dealt with ferry operations. This deals with what the pilot shall do when he is confronted with a situation, and deals with landings. There are regulations on landings. They are in the record. There has been testimony and exhibits put in by Mr. Riley to the effect that he must land at the nearest suitable airport and what his procedure shall be and how he shall clear with the flight superintendent. This is on the very same subject, where the company again stresses certain questions with respect to it.

The Court: The Court was inviting you to look at the place referred to by the witness.

Mr. Riley: I have, and I will withdraw my objection to the exhibit.

The Court: Defendant's Exhibit A-23 is now admitted.

(Defendant's Exhibit A-23 for identification received in evidence.)

The Court: You may read the portion of it now, or [734] you may defer that.

Mr. Koch: Would it be appropriate to suggest that that be done following the recess?

The Court: It may be done at any time, but the

(Testimony of Dudley S. Cox.)

expeditious thing would be to do it now. You are not required to do so. The Court will be at recess for about ten minutes.

(Recess.)

The Court: All are present. You may proceed.

Q. During the recess, did you have an opportunity to examine Exhibit A-23, which was introduced just prior to the recess?

A. Yes, sir, I did.

Q. What is the primary subject with which this exhibit deals? A. It deals with safety.

Mr. Koch: Your Honor, I wish to read a short portion of it, appearing on page 4.

The Court: Very well.

Mr. Koch: "Another regulation which can be used as an example in considering the matter of the interpretation of CAR's, is the one which deals with the continuation of flight with an engine out on 4-engine equipment. This rule (61.294) is as follows: 'Mechanical interruptions. In the event of any mechanical failure or interruption (including failure of engine, flight instrument, radio, or other essential component of the aircraft) which may [735] involve the safety of the flight, the pilot shall proceed to and land at the nearest place where a safe landing can be effected.' It is fundamental that 4-engine equipment is originally certified for Air Carrier Operation based on the premise that 4 engines will be in operation during the course of operation. As a safety factor, the aircraft must be proved to be able to proceed with one or two of the

(Testimony of Dudley S. Cox.)

engines inoperative. However, the ultimate safety of the flight is jeopardized the minute one of the engines becomes inoperative. Therefore, the aircraft must, when an engine is out, be landed at the nearest airport where a safe landing can be made. It is reasonable to assume that 'the nearest airport' is one which is nearest in point of time rather than miles and it is also reasonable to assume that the airport must be one which is suitable for the operation involved."

Q. This subject of landing at the nearest available airport, is it or is it not dealt with by the Civil Air Regulations? A. Yes, sir, it is.

Q. Does Part 41 apply? A. Yes, sir.

Q. Has that regulation been interpreted by the CAA? A. Yes, sir.

Q. What is that interpretation?

A. That interpretation is that the aircraft that loses one [736] engine must land at the nearest suitable airport.

Q. In the event that the pilot proceeds to destination, do the Civil Air Regulations impose some duty on the pilot? A. I'm sorry——

Q. What happens if the pilot elects to proceed to destination?

A. Then if he passes over the nearest suitable airport, then he declares an emergency and operates under his emergency authority.

Q. Do you know whether or not an explanation is then required by the CAA?

A. Yes, sir. He must justify his actions.

(Testimony of Dudley S. Cox.)

Q. Is he subject to any penalties, do you know?

A. In case justification is not satisfactory, then he is subject to disciplinary action.

Q. Had there been cases with which you are familiar and with which this problem of a pilot proceeding to destination and bypassing a suitable airport has been involved? A. Well, sir——

Q. Yes or no. A. Yes.

Q. Will you describe the situation to the Court?

Mr. Riley: I don't know what that can possibly have to do with this case.

The Court: Are you asking him to describe some regulation? [737]

Mr. Koch: No, I am asking him to describe what the CAA has done in the past and had done at the time of the accident where a pilot went on to destination instead of proceeding to the nearest suitable airport.

The Court: You have already asked him what the regulations were, and he has orally stated the regulations or interpretations, and the objection is sustained. If they have a regulation or anything that is in fact something that is circulated as an official document, you may bring that forward and mark it for identification.

Mr. Koch: It is in evidence, Part 41 of the Civil Air Regulations.

The Court: Read any part of it that pertains to the subject under inquiry at this time, or any time that may be regarded as more convenient.

Q. With respect to maintenance requirements, is

(Testimony of Dudley S. Cox.)

there any difference between scheduled flights and contract flights?

The Court: How could that be important here? You have only one of them involved, do you not? Isn't this a scheduled flight?

Mr. Koch: No, this is a contract flight, your Honor. It is scheduled under the contract.

The Court: Then the Court's statement does not apply and you may disregard it.

A. There are no differences in the maintenance requirements. [738]

Q. Under Northwest Airlines operations manual, is the pilot required to advise passengers of the fact of a three engine operation until an actual emergency is declared?

Mr. Riley: I think I should object to this line of questioning. I think the portions of the manual should be produced. That would be the best evidence.

The Court: The objection is sustained.

Mr. Koch: Your Honor, the Court permitted this very line of questioning to be conducted by Mr. Riley without producing the manual provisions.

The Court: I am not sure but what at the time he was having trouble getting from the defendant——

Mr. Koch: Not that, your Honor. It is in evidence now.

The Court: Perhaps it was not objected to. The objection is sustained.

(Testimony of Dudley S. Cox.)

Mr. Koch: Your Honor, I have the operations manual citation of paragraphs that apply.

The Court: Would you call it to the attention of opposing counsel?

Mr. Koch: It is in evidence. It is an extract from Northwest operations manual, Volume C, paragraph 30.20.40.

The Court: What is the exhibit number of what is in evidence?

Mr. Koch: It will take me a few minutes to find it.

The Court: You should know that. Do you admit that [739] it is in evidence in some exhibit?

Mr. Riley: I don't know that it is.

The Court: Desist for the present. Proceed with something else.

Q. As distinguished from a potential emergency, would an actual emergency be declared on a three engine operation?

A. No, sir, it would not, not unless complicated by other factors.

Q. Would an over water flight at night be a complicating factor under which the pilot should have invoked his actual emergency?

A. No, sir.

Q. Would inability to feather the engine be a complicating factor under which the pilot should have declared an actual emergency?

A. Yes, sir, it would be a complicating factor.

Q. When the pilot decided to land at an airport other than the point of destination, was he required

(Testimony of Dudley S. Cox.)

to notify the Northwest flight control station of the difficulty encountered? A. Yes, sir, he was.

Q. Do you know whether or not he did so?

A. Yes, sir, he did.

The Court: Do you know of any — if so, state what you know—of any complicating factors here in the action of this pilot in attempting to land this plane at Sandspit? [740]

A. I know of no complicating factors, sir.

The Court: Have you any comment to make on what a normal, usual and ordinary competent pilot would have in mind before he makes such a landing?

The Witness: No, sir. I think that any reasonable, competent pilot so qualified, with his experience, would have done exactly the same thing, gone into Sandspit.

The Court: He may have had some reason, according to your testimony, as I understand it, for landing other than the feathered engine, is that what you wish to say?

The Witness: Yes, sir.

The Court: Do you know what the reason was?

The Witness: He was required to do so by regulation.

Mr. Koch: Your Honor, I think that there is a misunderstanding. Perhaps I didn't make clear my question.

Q. In case of loss of an engine in flight on a four-engine aircraft, what is the pilot required to do?

(Testimony of Dudley S. Cox.)

A. He is required to land at the nearest suitable airport.

The Court: Whether there are any complications or not, is that what you mean to say? Is that what you understand the regulations to require?

The Witness: Yes, sir, that is what I understand the regulations to require.

Q. Did you or did you not testify that the loss of that engine constitutes a potential emergency?

A. I did so testify.

Q. As distinguished from a potential emergency, when would an actual emergency be declared?

The Court: If you know. Normally, by reasonably competent and careful pilots.

A. An actual emergency is an immediate cause of concern, an immediate grave danger, immediate hazard that confronts the pilot, that——

The Court: That is sufficient.

Q. Would that immediate problem or danger confronting the pilot in all cases, in your opinion, involve something more than a mere loss of an engine?

A. It would involve more than just the loss of an engine.

Q. Is the pilot required to notify passengers of an unscheduled landing? A. Yes, sir.

Q. Do you know whether or not he did so?

A. Yes, sir, he did so.

Q. In declaring an actual emergency, whose decision is that?

A. That rests with the captain of the flight.

(Testimony of Dudley S. Cox.)

Q. It is discretionary with him?

A. It is discretionary with the captain of the flight.

Q. How is a three engine landing classified by the Northwest manual?

A. Well, it is the same applicable principles as with a four [742] engine landing.

Q. Is it a normal or an abnormal landing?

A. Well, there are no undue precautions other than the normal precautions that you would have with one engine out. In other words, the airplane lands completely satisfactory on three engines. There is nothing unusual in the landing operation of the aircraft on three engines.

Q. Is the Northwest operations manual and other manuals promulgated by Northwest Airlines, do they require approval, part by part, by the Civil Aeronautics Administration?

A. The flight operations manuals, yes, they do.

Q. Do you know whether or not the sections in effect January 19, 1952, had been so approved?

A. Yes, sir, I am sure that they were.

Q. Were you in charge of the crew training program of Northwest Airlines at the time of this flight?

A. Yes, sir.

Q. Do your records indicate whether or not the pilot and co-pilot were duly certified and licensed?

A. Yes, sir, they do.

Q. Were they?

A. They were duly certified and qualified.

Q. Do your records indicate whether or not the

(Testimony of Dudley S. Cox.)

pilot, co-pilot and stewardess had completed training prescribed by the Northwest Airlines and CAA regulations? [743]

Mr. Riley: Objection. That is not the best evidence. They can produce the records and the people that compiled them.

Mr. Koch: I am going to do that. I asked him whether he has such information.

The Court: The objection is overruled as to this question, but as to what the information was, that might be another thing.

A. Yes, sir, they do.

Q. Do these papers and records show the experience, employment history and results of physical examinations of the pilot?

A. Yes, sir, they do.

Q. Does it set forth a fitness report?

A. Yes, I think that it does.

The Court: Why spend this time? All you need to do is bring them forward.

Mr. Koch: Exhibit A-8 from the pre-trial order, also A-9, A-10 and A-11.

The Court: I wish to give them new numbers, beginning with Defendant's Exhibit A-24.

(Record of John Pfaffinger marked Defendant's Exhibit A-24 for identification.)

Mr. Riley: Plaintiffs will not object to A-24.

The Court: Do you offer it in evidence?

Mr. Koch: I do, your Honor. [744]

The Court: It is admitted.

(Testimony of Dudley S. Cox.)

(Defendant's Exhibit A-24 for identification received in evidence.)

The Court: Can you give it a name which you think opposing counsel will not object to that reasonably reflects the nature of its information or contents?

Mr. Koch: It is the history and training and experience of the pilot, Pfaffinger.

The Court: Proceed. Ask him questions.

Q. What is the exhibit you have before you?

The Court: What kind of information does it contain?

The Witness: It contains the training——

The Court: Whose training?

The Witness: Captain Pfaffinger's training.

The Court: Is it a record of his pilot training?

The Witness: It is a record of his schooling by Northwest Airlines after his employment as captain, giving dates, number of hours and subjects that he took.

The Court: Pilot school training?

The Witness: Yes, sir, and flight training.

The Court: The record of pilot school training of who?

The Witness: Captain Pfaffinger.

Q. Does this pilot history show that the pilot was qualified over the Seattle to Anchorage run?

Mr. Riley: I object to the testimony. I would like [745] to ask the witness a couple of questions about the exhibit. I don't believe he is qualified to testify as to what it shows.

(Testimony of Dudley S. Cox.)

The Court: Do you object to this question?

Mr. Riley: I object to the question because I think it can be shown he didn't prepare them. It is a self-serving declaration from the company, a memorandum to Mr. Cox. Mr. Cox did not prepare the records or conduct the training.

Mr. Koch: He has agreed the exhibit might be admitted.

The Court: I will ask you to read the exhibit. Never mind having someone interpret it.

Mr. Koch: It is lengthy.

The Court: Read the part that is important.

(Defendant's Exhibit A-24 read by Mr. Koch.)

(Pilot history of Kenneth Kuhn marked Defendant's Exhibit A-25 for identification.)

(NWA Interoffice communication marked Defendant's Exhibit A-26 for identification.)

(Manuals assignment marked Defendant's Exhibit A-27 for identification.)

(Statement of flights marked Defendant's Exhibit A-28 for identification.)

Q. Will you state what you have before you?

A. This is the outline of pilot history of Kenneth Kuhn, co-pilot. [746]

The Court: Referring to Defendant's Exhibit A-25?

The Witness: Yes, sir, Defendant's Exhibit A-25, outline of pilot history of Kenneth H. Kuhn.

Q. Are there attachments also relating to co-pilot Kuhn? A. Yes, sir.